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ALIGNMENTS

RESULT Y17618 FSX PFF X RX PF X PFF X RX PF X PFF Synthetic. Heloderma Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying. 09-AUG-1999 (first entry) Y17618; WO9925728-A1. Exendin agonist peptide #84. 27-MAY-1999 Y17618 standard; peptide; 37 AA. · ds

Claim 28; Fig 4; 144pp; English. Peptide agonists of exendin - delay stomach emptying, for treating diabetes and hypo- or hyper-glycaemia Beeley NRA, WPI; 1999-347456/29 Prickett KS;

14-NOV-1997;

97US-0066029 98WO-US24273

(AMYL-) AMYLIN PHARM INC.

13-NOV-1998;

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                                                                                                                          Y17535 to Y17624 represent exendin peptide agonists. Exendins are peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow gastric emptying (resulting in lower post-prandial glucose levels).
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Heloderma sp
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                                                                                                                                                                                                                                                                      Peptide agonists of exendin - delay stomach emptying, diabetes and hypo- or hyper-glycaemia
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GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35
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tus type I; diabetes mellitus type II; hyperglycaemia;
plasma glucose; gastric emptying; stomach emptying.
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 Exendin agonist peptide #45
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Heloderma sp.
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Heloderma
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13-NOV-1998;
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                                              WO9925727-A2
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mellitus
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98WO-US24210.
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                                                                                                                                                                                                                                                                                                                                                        Score
Pred.
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                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                        93;
                                                                                                          emptying;
                                                                                                                                                                                                                                                                                                                                                         1.8e-10;
                                                                                                                                                                                                                                                                                                                                                                   DB 20;
                                                                                                                                                                                                                                                                                                                                                                Length 37;
                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                   hyperglycaemia;
                                                                                                                                  lizard;
                                                                                                         emptying.
                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULT
Y31535
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Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y24809 to Y24877 represent exendin agonist peptides which can regulate gastric motility and slow gastric emptying. The peptides can be used for treating e.g. diabetes or hyperglycaemic or hypoglycaemic conditions. The peptides are exendin agonists which have activity as agents to regulate gastric motility and to slow gastric emptying, as evidenced by the ability to reduce postrprandial glucose levels in mammals. They can be used for the treatment of Type I and II diabetes and hyperglycaemic or hypoglycaemic conditions. They can also be used for the treatment of of the disorders which would be benefited by agents which lower plasma glucose levels and in treatment of disorders which would be benefited with agents useful in delaying and/or slowing gastric emptying.
                                                                                                                                                                              Key
Modified-site
                                                                                                                                                                                                                                                                     Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclamp eclampsia of pregnancy; cardiac contractility; renal failure; diure congestive heart failure; nephrotic syndrome; pulmonary edema; cirr
                                                                                                                                                                                                                                                                                                                                         Exendin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New exendin agonist peptides slow gastric emptying, used 1
          Beeley NRA,
                                                              13-FEB-1998;
                                                                                       05-FEB-1999;
                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                   08-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                            Y31535;
                                                                                                                                                                                                                                                                                                                                                                                                                     Y31535 standard; peptide; 35 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 18; Fig 4; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-394773/33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AMYL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-NOV-1997;
                                    (AMYL-) AMYLIN PHARM INC
                                                                                                                19-AUG-1999.
                                                                                                                                         WO9940788-A1
                                                                                                                                                                                                                                                             hypertension;
                                                                                                                                                                                                                        Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gtftsdlskqmeeeavrlfiewlknggassga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                      gp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prickett KS;
                                                                                                                                                                                                                                                                                                                                                                   (first entry)
          Prickett K,
                                                                                                                                                                                                                                                             urine flow.
                                                              98US-0075122
                                                                                       99WO-US02554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0065442.
                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.9%;
                                                                                                                                                                   "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 s - can regulate gastric motility and
for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 93;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
         Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 20;
. 1.8e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                pre-eclampsia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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Vine

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Y24839
ID 839
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/disorder that can be alleviated by increasing cardiac contractility (congestive heart failure, pulmonary edema, systemic edema or renal failure). Unlike prior art diuretics, the new methods increase urine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          excretion and sodium excretion without increasing potassium loss, and fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously. Sequences Y31505-560 represent examples of exendin agonists compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hypergly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y24839 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to new methods of increasing urine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-527332/44
                             Claim 18; Fig 4; 108pp; English
                                                                                   New exendin agonist peptides slow gastric emptying, used i
                                                                                                                                                                                                                                   Beeley NRA,
                                                                                                                                                                                                                                                                                                                                                     14-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                              13-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Exendin agonist peptide #31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y24839;
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                                                                                                                                                                          WPI; 1999-394773/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09925727-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypoglycaemia;
                                                                                                                                                                                                                                                                                         (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Heloderma sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gtftsdlskqleeeavrlfieflknggpssga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                   Prickett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                     97US-0065442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       plasma
                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US24210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.0%;
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                                                                                                                                                                                                                                   ΚS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glucose;
                                                                                   ptides - can regulate gastric motility and
used for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 92;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ጅ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.6e-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    litus type II; hyperglycaemia;
emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              flow that
r a GLP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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Y17608
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Query Match
Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gastric motility and slow gastric emptying. The peptides can be used for treating e.g. diabetes or hyperglycaemic or hypoglycaemic conditions. The peptides are exendin agonists which have activity as agents to regulate gastric motility and to slow gastric emptying, as evidenced by the ability to reduce post-prandial glucose levels in mammals. They can be used for the treatment of Type I and II dlabetes and hyperglycaemic or hypoglycaemic conditions. They can also be used for the treatment of disorders which would be benefited by agents which lower plasma glucose levels and in treatment of disorders which would be benefited with agents useful in delaying and/or slowing gastric emptying.
                      Y17535 to Y17624 represent exendin peptide agonists. Exendins are peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow gastric emptying (resulting in lower post-prandial glucose levels).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y24809 to Y24877 represent exendin agonist peptides which can regastric motility and slow gastric emptying. The peptides can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y17608;
                                                                                                                                                                                       Peptide agonists of exendin - diabetes and hypo- or hyper-gl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Exendin agonist peptide #74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-AUG-1999
                                                                                                                                                          Claim
                                                                                                                                                                                                                                       WPI; 1999-347456/29
                                                                                                                                                                                                                                                                   Beeley
                                                                                                                                                                                                                                                                                                    (AMYL-) AMYLIN
                                                                                                                                                                                                                                                                                                                                 14-NOV-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
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                                                                                                                                                          28;
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21; Conservative
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                                                                                                                                                        Fig 4; 144pp; English
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35 AA;
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                                                                                                                                                                                                                                                                                                    PHARM INC
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                                                                                                                                                                                                                                                                     KS
                                                                                                                                                                                       hyper-glycaemia
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Pred. No. 2.6e
0; Mismatches
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                                                                                                                                                                                                        delay stomach emptying,
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5
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2.6e-10;
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Query Match Best Local Similarity

76.0%; 65.6%;

Score Pred.

92; No.

DB 20; 2.6e-10;

Sequence

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RESULT
Y31533
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                                                                                                                                                             The invention relates to new methods of increasing urine flow that comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ oper-eclampsia or eclampsia of pregnancy, and increasing a condition/ conjustive heart failure, pulmonary edema, systemic edema or renal failure). Unlike prior art diuretics, the new methods increase urine
Query Match
Best Local Similarity
Matches 21; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal failure; diuretic; congestive heart failure; nephrotic syndrome; pulmonary edema; cirrhosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
Modified-site
                                                                                                      excretion and sodium excretion without increasing potassium loss, and fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously. Sequences Y31505-560 represent examples of exendin agonists compounds.
                                                                                                                                                                                                                                                                                                                                                                                               Example 32; Page 47; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beeley NRA, Prickett K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Exendin agonist peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21;
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                                                                                                                                                                                                                                                                                                                                                                                                                         urine flow by administering peptides or peptide agonists
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   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   urine flow.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "C-terminal amide"
              76.0%;
65.6%;
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Score 92; DB Pred. No. 2.7e 0; Mismatches
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               DB 20;
2.7e-10;
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                            Length 36;
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RESULT
Y24837
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                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                               Y24809 to Y24877 represent exendin agonist peptides which can regulate gastric motility and slow gastric emptying. The peptides can be used for treating e.g. diabetes or hyperglycaemic or hypoglycaemic conditions. The peptides are exendin agonists which have activity as agents to regulate gastric motility and to slow gastric emptying, as evidenced by the ability to reduce post-prandial glucose levels in mammals. They can be used for the treatment of Type I and II diabetes and hyperglycaemic or hypoglycaemic conditions. They can also be used for the treatment of disorders which would be benefited by agents which lower plasma glucose levels and in treatment of disorders which would be benefited with agents useful in delaying and/or slowing gastric emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Slow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Exendin agonist peptide #48
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24-AUG-1999
                          Y24837;
                                                  Y24837 standard;
                                                                                                                                                                                                                                            Sequence
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                                                                                                                  4 gtftsdlskgmeeeavrlfiewlknggxssga
                                                                                                                                             4 GTXXXXXSKCXEEEAVRLXXXXLKNGGXSSGA 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                          exendin agonist peptides - can regulate gastric motility gastric emptying, used for treating, e.g. diabetes
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                                                                                                                                                                                                                                            36 AA;
                                                                                                                                                                         Conservative
(first entry)
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                                                  peptide; 36 AA.
                                                                                                                                                                                      76.0%;
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                                                                                                                                                                         0;
                                                                                                                                                                                      Score 92;
Pred. No.
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                                                                                                                                                                         Mismatches
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2.7e-10;
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RESULT Y17619
ID Y17619
ID Y17
XX Y17
AC Y17
XX 09-
DT 09-
DT Exe
XX Exe
XX Exe
XX dia:
KW dia:
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Best Local :
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                                                                                                  Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hypergly hypoglycaemia; plasma glucose; gastric emptying; stomach empt
                                                                                                                                                                                         09-AUG-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
 27-MAY-1999
                            W09925728-A1
                                                                        Synthetic.
                                                                                                                                                         Exendin agonist peptide #85
                                                                                                                                                                                                                                                 Y17619 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Slow
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                                                       Heloderma sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 agents useful in delaying and/or slowing gastric emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AMYL-) AMYLIN PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exendin agonist peptides
gastric emptying, used
                                                                                                                                                                                                                                                                                                                        gtftsdlskqleeeavrlfieflknggpssga
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                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA,
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                                                                                                                                                                                                                                                 peptide;
                                                                                                                                                                                                                                                                                                                                                                                             76.0%;
65.6%;
                                                                                                                                                                                                                                                  36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s - can regulate gastric motility
for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                              Score 92; DB 20;
Pred. No. 2.7e-10;
0; Mismatches 11
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                                                                                                                                                                                                                                                                                                                                                                                                         Length 36;
                                                                                                   II; hyperglycaemia;
stomach emptying.
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Best Local S
Matches 22
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Heloderma
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                                                                                                                                                                                                                                                      Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                                                          Y17605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide agonists of exendin - delay s diabetes and hypo- or hyper-glycaemia
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                      Claim 28;
                                                                                                                                                                                                                                                                                               Exendin agonist
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                                        Peptide agonists of exendin - delay s diabetes and hypo- or hyper-glycaemia
                                                                                                                                       14-NOV-1997;
                                                                                                                                                                                27-MAY-1999
                                                                                                                                                                                                   WO9925728-A1
                                                                                                                                                                                                                                                                                                                                                              Y17605 standard; peptide; 36
                                                                                                                 (AMYL-) AMYLIN
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                                                                                             NRA,
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                    F1g 4;
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                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                              Prickett
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                                                                                                                  PHARM INC.
                                                                                                                                       97US-0066029
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                                                                                                                                                                                                                                                                                                 peptide
                    144pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76.0%;
                                                                                              KS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 92;
Pred. No.
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                                                   delay stomach
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2.7e-10;
                                                    emptying,
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Query Match
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         comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin agonist agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ disorder that can be alleviated by increasing cardiac contractility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow gastric emptying (resulting in lower post-prandial glucose levels).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal fallure; diuretic; congestive heart fallure; nephrotic syndrome; pulmonary edema; cirrhosi:
                                                                                                                                                                                                                                                                             WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                                                                                                                                    05-FEB-1999;
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Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypertension;
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                                                                                                                                                                                  The invention relates
                                                                                                                                                                                                                Example
                                                                                                                                                                                                                                               Increasing
                                                                                                                                                                                                                                                                                                                                        (AMYL-) AMYLIN PHARM INC
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                                                                                                                                                                                                                                               urine flow
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                                                                                                                                                                                                                Page
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failure, pulmonary edema,
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Pred. No. 2.7e
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2.7e-10;
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 systemic edema or renal
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The invention relates to new methods of increasing urine flow that comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ disorder that can be alleviated by increasing cardiac contractility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal failure; diuretic; congestive heart failure; nephrotic syndrome; pulmonary edema; cirrhosi hypertension; urine flow.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    failure). Unlike prior art diuretics, the new methods increase urine excretion and sodium excretion without increasing potassium loss, and fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously. Sequences Y31505-560 represent examples of exendin agonists compounds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                              Example 48;
                                                                                                                                                                                                         Increasing urine flow by administering
                                                                                                                                                                                                                                     WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                         (AMYL-) AMYLIN PHARM INC
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Maximum Match 100%
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Perfect score:
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Maximum DB
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
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length: 2000000000
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Gapop 10.0 , Gapext 0.5
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121
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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-066-480-1
US-08-066-480-3
US-08-066-480-3
US-08-066-480-3
US-08-316-480-4
US-08-317-305-4
US-08-317-305-4
US-08-317-305-2
US-08-317-305-2
US-08-317-305-2
US-08-317-305-2
US-08-317-305-4
US-08-317-305-4
US-08-317-305-4
US-08-317-305-4
US-08-317-305-4
US-08-317-31-3
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US-08-066-480-1
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Patent No.
                                Query Match
Best Local Similarity
Matches 21; Conserv
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APPLICANT: Eng, J.
 4 GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35
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Result

Conservative

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Gaps

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35 28.9 356 3 US-09-234-332-7 35 28.9 546 2 US-08-492-027A-8 35 28.9 546 2 US-08-492-027A-8 35 28.9 619 3 US-08-813-150-6 35 28.9 777 2 US-08-481-193A-16 35 28.9 777 3 US-08-480-474-16 35 28.9 777 3 US-08-480-474-16 35 28.9 877 3 US-08-480-474-16 35 28.9 854 2 US-08-231-193A-32 35 28.9 854 2 US-08-480-474-32 35 28.9 854 3 US-08-480-474-32 35 28.9 854 3 US-08-480-323B-2 35 28.9 863 3 US-08-480-323B-2 35 28.9 870 2 US-08-480-373A-30 35 28.9 870 2 US-08-480-373A-30 35 28.9 870 2 US-08-480-373A-30 35 28.9 870 3 US-08-480-373A-30	45	44	43	42	41	40	39	38	37	36	35	34	သ	32	31	30	
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80 - SD 80 - SD	870	870	870	863	854	854	854	854	777	777	777	777	619	546	356	356	
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	App	App	App	App1	App	App.	App	App.	App.	App	App	App	App1	Appl	Appl	App1	

ALIGNMENTS

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; NAME/KEY: Peptide
; LOCATION: 1.39
; OTHER INFORMATION: /label= Exendin-3
US-08-066-480-1
                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 93
TELECOMMUNICATION: INFORMATION:
TELEPHONE: 312-715-1000
TELEFAX: 312-715-1234
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 39 amino acids
TYPE: amino acid
STRANDEDNESS: single
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NAME: McDonnell, John J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Eng, John TITLE OF INVENTION: 1
                                                                                                                                                     FEATURE:
                                                                                                                                                                     TOPOLOGY: 1
MOLECULE TYPE:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: LV Chicago
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08 FILING DATE: 24-MAR-1993 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                         NAME: McDonnell, Jol REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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10 S. Wacker Drive
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               75.2%;
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Score 91; DB
Pred. No. 5.9e
0; Mismatches
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               DB 1; 1
5.9e-10;
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                                 Length 39;
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US-08-066-480-5
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                                                                                                                                                                     Sequence 5, Application Patent No. 5424286
GENERAL INFORMATION:
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Best Local Similarity 65.6
Matches 21; Conservative
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TELEFAX: 312-715-1234
INFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: Floppy disk
COMPUTER: PATEN: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/066,480
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514
APPLICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 39 amino acids
TYPE: amino acid
STRANDEDNESS: single
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REGISTRATION NUMBER: 26,949
REFERENCE/DOCKET NUMBER: 93,084
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Eng, John
TITLE OF INVENTION: Pharmaceutical Compositions And Use of
TITLE OF INVENTION: Exendin-3 and Exendin-4 for Treatment of Diabetes Mellitus
                                                                                           APPLICANT: Eng, John
TITLE OF INVENTION: Pharmaceutical Compositions And Use of
TITLE OF INVENTION: Exendin-3 and Exendin-4 for Treatment of Diabetes Mellitus
NUMBER OF SEQUENCES: 7
                                                                       CORRESPONDENCE ADDRESS:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 10 S. WAG
CITY: Chicago
STATE: Illinois
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                                    STREET:
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OTHER INFORMATION: /label= Exendin-4
                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: Peptide 
LOCATION: 1..39
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Chicago
Illinois
                                                                                                                                                                                                                Application US/08066480
                                  E: Allegretti & Witcoff, Ltd
10 S. Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Allegretti & Witcoff, Ltd.
10 S. Wacker Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide
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65.6%;
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Pred. No. 5.9e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 39;
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; NAME/KEY: Peptide
; LOCATION: 1..31
; OTHER INFORMATION: ,
; OTHER INFORMATION: ,
; OTHER INFORMATION: ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
APPLICATION NUMBER: US/08/066
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: MCDOnnell, John J
REGISTRATION NUMBER: 26,949
REFERENCE/DOCKET NUMBER: 93,0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/
FILING DATE: 24 MAR-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: MCDonnell, John J
REGISTRATION NUMBER: 26,94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Eng, John
TITLE OF INVENTION: Pharmaceutical Comp
TITLE OF INVENTION: Exendin-3 and Exend
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: Allegretti & Witcoff, Ltd.
STREET: 10 S. Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 93
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1. CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 31 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                       CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                 Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Pharmaceutical Compositions And Use of Exendin-3 and Exendin-4 for Treatment of Diabetes Mellitus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68.6%;
76.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= Exendin-9-39
/note= "Exendin-4(9-39)"
                                                                                                                                                          US/08/066,480
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1.3e-08;
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US-08-066-480-4
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Best Local Similarity 63.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/066
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: MCDOnnell, John J
REGISTRATION NUMBER: 26,949
REFERENCE/DOCKET NUMBER: 93,0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
TELEPHONE: 312-715-1234
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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INFORMATION FOR SEQ ID NO:
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CITY: Chicago
TMATE: Illinois
TMATE: TISA
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MEDIIM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 31 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
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                               NAME/KEY: Peptide LOCATION: 1.31 OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: /label= Exendin-1-31
OTHER INFORMATION: /note= "Exendin-4(1-31)"
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10 S. Wacker Drive
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                           /label= Y31-Exendin4
/note= "Y-31-Exendin-4(1-31)"
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r Treatment o
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Query Match

62.0%;

Score 75;

DB 1;

Length 31;

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                                                                                                                                                                   US-08-317-305-4
                                                                         Sequence 4, Application US/08317305
Patent No. 5863744
GENERAL INFORMATION:
APPLICANT: Avraham, Shalom
APPLICANT: Avraham, Hava
APPLICANT: Groopman, Jerome E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 5863744
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (617) 542-22:
TELEFAX: (617) 451-0313
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/317,305
FILING DATE: 03-OCT-1994
CLASSIFICATION: 436
CTASSIFICATION: 436
ATTORNEY/AGENT INFORMATION:
NAME: Williams Ph.D., Kathleen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 34,380
REFERENCE/DOCKET NUMBER: DH
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-2290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Avraham, S
APPLICANT: Avraham, E
APPLICANT: Groopman,
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                 NUMBER OF SEQUENCES: O
                                              TITLE OF INVENTION:
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                                                                                                                                                                                                                                262 SKEIVEEAIRCKLKILQNDG 281
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TOPOLOGY:
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    ADDRESSEE:
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9; Conserv
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Avraham, Hava
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in Post Office
Weingarten, Schurgin, Gagnebin & Hayes
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                                              NOVEL PROTEIN MARKER AND DNA ENCODING SAME
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e Square
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Pred. No.
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STATE: MA STREET:

Boston

Ten Post Office Square

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MOLECULE TYPE: protein US-08-317-305-4
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Best Local S
Matches 9
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                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/862,508
FILING DATE: 23-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/317,305
FILING DATE: 03-OCT-1994
ATTORNEY/AGENT INFORMATION:
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INFORMATION FOR SEQ ID NO:
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CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Williams Ph.D., Kathleen A.

NAME: Williams Ph.D., Kathleen A.
NAME: Silveri, Jean M.
REGISTRATION NUMBER: 39,030
REFERENCE/DOCKET NUMBER: NER-259DV
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lahlve & Cockfield, LLP
STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 262 SKEIVEEAIRCKLKILQNDG 281
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                  SOFTWARE:
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9; Conservative
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Groopman, Jerome E.
VENTION: NOVEL NEURAL CELL PROTEIN MARKER RR/B AND DNA
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                                                                                                                                                                                                                                  PatentIn Release #1.0, Version #1.25
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Pred. No.
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                                                          Query Match: 33.9
Best Local Similarity 45.0
Matches 9; Conservative
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SEQUENCE CHARACTERISTICS:
LENGTH: 589 amino acid
                                                                                                                                                                                                                              TELEFAX: (617) 742-421 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                         NAME: Silveri, Jean M.
REGISTRATION NUMBER: 39,030
REFERENCE/DOCKET NUMBER: NEI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227,7400
                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/862,508
FILING DATE: 23-MAX-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/317,305
FILING DATE: 03-OCT-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 589 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy
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APPLICANT: Groopman, Jerome E.
TITLE OF INVENTION: NOVEL NEURAL CELL PROTEIN MARKER RR/B AND
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
262 SKEIVEEAIRCKLKILQNDG 281
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STREET: 28
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                            11 SKOXEEEAVRLXXXXLKNGG 30
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TOPOLOGY: linear
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ZIP: 02109
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                                                                            Score 41;
Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application:
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FLOPPY DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Silveri, Jean M.
REGISTRATION NUMBER: 39,030
REFERENCE/DOCKET NUMBER: NER-259PC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 589 amino acid
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FILING DATE: 29-SEP-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/317,305
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APPLICANT: Avraham, Hava
APPLICANT: Groopman, Jerome E.
TITLE OF INVENTION: NOVEL PROTEIN MARKER AND DNA ENCODING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: Lahive & Cockfield
                                                                                                                                                                                                                                                                          APPLICANT: Avraham, Shalom
APPLICANT: Avraham, Hava
APPLICANT: Groopman, Jerome E.
TITLE OF INVENTION: NOVEL PROTEIN MARKER AND DNA ENCODING SAME
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                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            262 SKEIVEEAIRCKLKILQNDG 281
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                                                                                                                                                                     STATE:
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                                                                                                                                                                                                      60 State Street, Suite 510
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(617) 227-5941
TD NO: 2:
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45.0%; Pred. No.
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US-08-062-024B-5
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APPLICANT: Alan C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-9941
INFORMATION FOR SEQ ID NO: 4:
                                                                                         TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                    SOFTWARE: Microsoft Word 4.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/062 FILING DATE: May 17th 1993 CLASSIFICATION: 435
                                                                                                                                                         REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: CR
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Pseudomonas syringae pv. syringae hrpZ Gene NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 589 amino acid
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ATTORNEY/AGENT INFORMATION:
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           TOPOLOGY: 11
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                                                            TYPE: amino acid
                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
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FILING DATE: 29-SEP-1995
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                                          STRANDEDNESS:
                                                                                                                                                                                                          NAME: George M. Yahwak
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(203)268-1951
TD NO: 5:
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                            linear
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Query Match
Best Local Similarity

32.2%;

Score 39; Pred. No.

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Length 341;

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US-08-756-407-5
Sequence 5, Application US/08756407
Patent No. 5858786
GENERAL INFORMATION:
APPLICANT: Alan Collmer and She
                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear ; MOLECULE TYPE: protein US-08-891-254-5
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                                                                                                                                                                               RESULT 14
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NAME: GOLDMAN, MICHAEL L.
REGISTRATION NUMBER: 30,727
REFERENCE/DOCKET NUMBER: 1460
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1304
TELEPAX: (716) 263-1300
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                     Query Match 32.2%;
Best Local Similarity 32.0%;
Matches 8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOTTWARE: Patent In Release #1.0, CURRENT APPLICATION DATA: BEYONG PRICATION WHERE: US/08/891,254 FILLING DATE: 10-JUL-1997 CLASSIFICATION: 514 PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/475,775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                   APPLICANT: Alan Collmer and Sheng-Yang
TITLE OF INVENTION: Pseudomonas syringa
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
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APPLICANT: Beer, Steven V.
TITLE OF INVENTION: Hypersensitive Response
TITLE OF INVENTION: Induced Resistance In Plants
                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0,
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Patent No. 5859324.
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Beer, Steven V.
APPLICANT: Beer, Steven V.
TITLE OF INVENTION: Hypersensitive Response
TITLE OF INVENTION: Induced Resistance In Plants
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Best Local :
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/
FILING DATE: 27-NOV-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: 062,02:
FILING DATE: 17-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,82
REFERENCE/DOCKET NUMBER: C.
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INFORMATION FOR SEQ ID NO:
                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0,
CURRENT APPLICATION DATA:
                                                     APPLICATION NUMBER: US/01 FILING DATE: 17-MAR-1997 CLASSIFICATION: 800 PRIOR APPLICATION NUMBER: 08/4
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ATTORNEY/AGENT INFORMATION:
NAME: Goldman, Michael L.
                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
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TOPOLOGY: lir
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OPERATING SYSTEM: M
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8; Conserv
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Clinton Square, P.O. Box 1051
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Pred. No. 15;
4; Mismatches
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Perfect score:
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Match
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Copyright (c) 1993 - 2000 Com
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A;Titt A;Titt A;Refe A;Acce A;Moll A;Resi G;Com G;Com G;Sup C;Sup C;Keyy	RESULT HWGH3Z exendin-3 C;Species C;Date: 3 C;Accessi R;Eng, J. T Riol		20 20 20 20 20 20 20 20 20 20 20 20 20 2
A;Ittle: Purification and structure of exendin-3, A;Reference number: A23674; MUID:91056067 A;Accession: A23674 Protein A;Accession: Type: protein A;Molecule type: protein A;Residues: 1-39 <eng5 #<="" (ser)="" amidated="" amylase.="" are="" c:comment:="" c;reywords:="" c;superfamily:="" carboxyl="" components="" duplication;="" end="" end;="" exendins="" f;39="" g="" glucagon="" in="" modified="" of="" s="" secretion="" site:="" td="" that="" venom=""><td>2 2 3 1 H 1</td><td></td><td>366666666655777</td></eng5>	2 2 3 1 H 1		366666666655777
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venom	Mexican beaded lizard eleloderme horridum (Me lar-1993 #sequence_rev A23674 P.C.; Kleinmandrews, P.C.; Kleinmandrews, P.C.; Consolution (Metalare P.C.)		628 938 1237 1314 85 1153 1153 1260 238 268 303 318 324
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fication and structure of exendin- maber: A23674; MUID:91056067 A23674 pe: protein -39 <eng- andins are venom components that a n of amylase. : glucagon nidated carboxyl end; duplication; site: amidated carboxyl end (Ser)</eng- 	beaded lizard a horridum (Mexican bea bequence_revision 31 P.C.; Kleinman, W.A.; 20250-20262 1000	ALIG	T51283 T13352 T05533 A31334 HR09481 HR09481 AF09964 AF09964 D71189 D7118
xxendin-3, a new pancreatic secretagogue isola; that are thought to bind to receptors for vacation; secretagogue; venom (Ser) #status experimental	<pre>beaded lizard horridum (Mexican beaded lizard) #sequence_revision 31-Mar-1993 #text_change 21-Nov-1997 P.C.; Kleinman, W.A.; Singh, L.; Raufman, J.P. 2056-2056 1990</pre>	ALIGNMENTS	glucan 1,3-beta-gl stn-A protein - fr hypothetical prote phosphorylase kina mating type silenc hypothetical prote hypothetical

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exendin-4 - Gila monster
C;Species: Heloderma suspectum (Gila monster)
C;Date: 31-Mar-1993  #sequence_revision 31-Mar-1993  #text_change 21-Nov-1997
C;Accession: A42486
R;Eng, J; Kleinman, W.A.; Singh, L.; Singh, G.; Raufman, J.P.
J. Biol. Chem. 267, 7402-7405, 1992
A;Title: Isolation and characterization of exendin-4, an exendin-3 analogue, from A;Reference number: A42486; MUID:92218391
A;Accession: A42486
A;Molecule type: protein
A;Residues: 1-39 <ENCo
C;Comment: Exendin-4 does not stimulate amylase secretion by pancreatic acinar ce C;Superfamily: glucagon
C;Keywords: amidated carboxyl end; duplication; venom
F;39/Modified site: amidated carboxyl end (Ser)  #status experimental
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Query Match
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                        Similarity
                        75.2%;
  Score 91; DB
Pred. No. 5.6e
0; Mismatches
                                              DB 1;
                           .6e-10;
                                              Length 39
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E75110 JC4703

transcription init basic helix-loop-h

neurogenic differe

D71137 A40706 E71845 E64671

hypothetical prote probable transcrip extracellular hype polyribonucleotide polynucleotide pho probable carbonate protein kinase (EC probable transcrip

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Query Match 75... Best Local Similarity 65... Matches 21; Conservative

75.2%; 65.6%;

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Score 91; DB Pred. No. 5.6e 0; Mismatches

DB 1; 5.6e-10;

Length 39

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Gaps

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transcription regu beta-D-glucan exch

T06154 C69774

I49338 A57059 S23018 T45640 T20183 T13716

beta-cell E-box tr DNA ligase (ATP) (beta-D-glucan exoh hypothetical prote bazooka gene prote AST2 protein - yea hypothetical prote

probable glucan

Conservative

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Indels

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Gaps

0;

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R;McLean, J.; Harris, D.; Wood, V.; Barrell, B.G.; submitted to the EMBL Data Library, February 1998 A;Reference number: Z21831 A;Accession: T39165 A;Status: preliminary; translated from GB/EMBL/DDBJ A;Status: preliminary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. Bacteriol. 176, 5847-5851, 1994
A;Title: Molecular cloning and characterization
A;Reference number: I55076; MUID:94364967
A;Accession: I55076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: G64803; I55076
R;Blattner, F.R.; Plunkett III,
.A.; Rose, D.J.; Mau, B.; Shao,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    phosphoglucomutase (EC 5.4.2.2) - Escherichia C;Species: Escherichia coli C;Date: 12-Sep-1997 #sequence_revision 17-Sep-
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                                                                                                                                                                                                                                                                                                                                                   conserved hypothetical protein SPAC8E11.11 - fission yeast (Schizosaccharomyces C;Species: Schizosaccharomyces pombe C;Date: 03-Dec_1999 #sequence_revision 03-Dec-1999 #text_change 03-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: phosphoglucomutase
C;Keywords: intramolecular transferase; isomerase;
F;146/Active site: Ser (phosphoserine intermediate)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Gene: pgm
C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia
A;Reference number: A64720; MUID:97426617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-21, 'M', 23-546 < RES> A; Cross-references: EMBL: U08369;
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A; Residues: 1-21, 'M',
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A; Residues: 1-546 <BLAT>
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                                                                                                                                                             A;Cross-references: EMBL:AL021817; PIDN:CAB40198.1; A;Experimental source: strain 972h-; cosmid c8E11
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A; Residues: 1-141 <MCL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Species: Escherichia coli
Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 17-Mar-2000;
Accession: G64803; I55076
                                                                                                                              Gene:
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             Matches
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         Local Similarity hes 8; Conserv
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               Conservative
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Mau, B.; Shao, Y.
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                               33.9%;
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Pred. No. 8
2; Mismatcl
             Score 41; DB 2
Pred. No. 3.2;
5; Mismatches
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C;Species:
C;Date: 13
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#text_change 21-Jul-2000

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R; White, O.; Eisen, J.A.; Heidelberg, J.F.; M.; Shen, M.; Vamathevan, J.J.; Lam, P.; M. S.; Smith, H.O.; Venter, J.C.; Fraser, C.M. Science 286, 1571-1577, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein DR2500 - Deinococcus radiodurans (strain C;Species: Deinococcus radiodurans C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_chang C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_chang C;Accession: G75266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Gene: DR2500
A;Map position: 1
C;Superfamily: Deinococcus radiodurans hypothetical
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A; Residues: 1-157 cmill>
A; Cross-references: GB: AE002079;
A; Experimental source: strain Rl C; Genetics:
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                                                      RESULT
T13704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        molybdenum cofactor biosynthesis protein (moea-1) PAB1436 - C;Species: Pyrococcus abyssi
C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text cha
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A75054
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C;Superfamily: r
                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-402 <KAW>
A; Cross-references: GB:
                                                                                                                                                                                                                                                                                                                                                                                                                                         R;anonymous, Genoscope
submitted to the EMBL Data Library, July 1999
A;Description: Pyrococcus abyssi genome seque
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                                    still life
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                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary
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ife protein type 2 - fruit fly (Drosophila melanogaster)
es: Drosophila melanogaster
13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change
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9; Conser
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8; Conservative
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ce: strain Orsay
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39.1%;
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Pred. No.
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Pred. No.
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McDonald,
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Utterback,
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T.; Zalewski,
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transcription regulator phage-related homolog ydcN - Bacillus subtilis
C;Species: Bacillus subtilis
C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 20-Jun-2000
C;Accession: C69774
C;Accession: C69774
R;Kunst, F; Ogasawara, N; Moszer, I; Albertini, A.M.; Alloni, G; Azevedo, V.; Berter
C; Brou, S.; Broulllet, S.; Bruschi, C. V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chc
A; Ehrlich, S.D.; Emmerson, P.T.; Entlan, K.D.; Errington, J; Fabret, C.; Ferrari, E.
Nature 390, 249-256, 1997
A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler
iech, J; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.
Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois,
A;Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel
y, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Mosueel
y, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Dortetelle
Rieger, M.; Rivolia, C.; Rocha, E.; Roche, B.; Rose, M.; Saddaie, Y.; Sato, T.; Scanlon,
A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror
akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama,
T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yanamoto, K.; Yata, K.; Yoshida, K
A;Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.
A;Reference number: A55580; MUDI.98044033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        still life protein type 1 - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 21-Jul-2000
C;Accession: T13707
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R;Sone, M.; Hoshino, M.; Suzuki, E.; Kuroda, S.; Kaibuch Science 275, 543-547, 1997
A;Title: Still life, a protein in synaptic terminals of A;Reference number: Z17701; MUID:97153054
A;Accession: T13704
A;Status: preliminary; translated from GB/EMBL/DDBJ
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A;Title: Still life, a protein in synaptic terminals of Drosophila homologous to GDP-GTIA;Reference number: Z17701; MUID:97153054
A;Accession: T13707
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A;Residues: 1-2044 <SON>
A;Cross-references: EMBL:D86546; NID:g1813375; PIDN:BAA13108.1;
                                                                                              A; Reference number: A69580; MUID: 98044033
A; Accession: C69774
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                                                             A; Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-2064 <SON>
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Best Local S
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RQIIRESVRNMSIPMKNFGGSSGS 1804
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41.7%;
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Pred. No. 55;
4; Mismatches
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Pred. No.
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A;Cross-references: GB:Z99106; GB:AL009126; NID:g2632653; PIDN:CAB12289.1; PID:g26327 A;Experimental source: strain 168 C;Genetics:
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T06154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              beta-D-glucan exohydrolase-like protein - Arabidopsis thaliana N;Alternate names: protein F13I12.60 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_change 21-Jul-2000 C;Accession: T45537
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C;Superfamily: probable transcription repressor
                                                                                     A; Map position: 4
A; Introns: 4/2; 42/3; 273/2; 303/2; 342/3;
                                                                                                                                                      A; Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-772 <BEV>
A;Cross-references: EMBL:ALO21768; GSPDB:GN00062; ATSP:F24J7.162
A;Experimental source: cultivar Columbia; BAC clone F24J7
                                                                                                                                                                                                                                                            R;Bevan, M.; Vitale, D.; Liguori, R.; Argiriou, A.; De submitted to the Protein Sequence Database, April 1999
                                                                                                                                                                                                                                                                                                   hypothetical protein:F24J7.162 - Arabidopsis thaliana (;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 22-Oct-1999 C;Accession: T06154;
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A;Introns: 57/1; 125/2; 155/3; 204/2;
A;Note: F13II2.60
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A; Accession: T06154
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A;Experimental source: cultivar Columbia;
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                                                                                                                         A;Gene: ATSP:F24J7.162
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   Similarity 9; Conser
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                  33.1%;
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Score 40; DB Pred. No. 30; 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2;
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Pred. No.
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Pred. No.
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                                                                                       346/1;
                DB
30;
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C;Species: Helicobacte:
A;Variety: strain J99
C;Date: 12-Feb-1999 #s;
C;Accession: E71845
R;Alm, R.A.; Ling, L.S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C:Species: Pseudomonas syringae
C:Date: 21-Sep-1993 #sequence_revision
C:Accession: A40706
R:He, S.Y.; Huang, H.C.; Collmer, A.
Cell 73, 1255-1266, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Gene: PH0864
C;Superfamily: transcription initiation
C;Keywords: transcription initiation
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A;Experimental source: strain OT3
A;Note: this accession replaces an
C;Genetics:
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A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic A;Reference number: A71000; MUID:98344137
A;Accession: D71137
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
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C;Species: Pyrococcus horikoshii
C;Date: 14-Aug-1998 #sequence_revision 14-Aug-1998
C;Accession: D71137
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A; Residues: 1-208 < KAW>
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                                                                 polyribonucleotide nucleotidyltransferase
C; Species: Helicobacter pylori
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A; Molecule type: DNA;
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A;Reference number: A40706; MUID:93313957
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     extracellular hypersensitive necrosis response elicitor, 34.7K -
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                                                                                                                                                                                                                                                                                                                    Cross-references: GB:L14775; NID:g349793; PIDN:AAA25839.1; Experimental source: syringae 61; Note: sequence extracted from NCBI backbone (NCBIN:135085,
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   Ling, L.S.L.;
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3; Mismatches
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   D.T.;
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SIKNKEQVIRLVSEILESNGSSSMA

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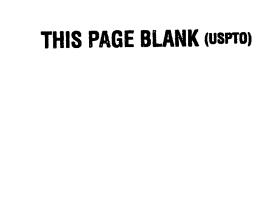
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16:08:14

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A;Title: Genomic sequence comparison of two unrelated isolates of the human g A;Reference number: A71800; MUID:99120557
A;Recession: E71845
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-688 <ARN>
A;Residues: 1-688 <ARN>
A;Experimental source: GB:AE001541; GB:AE001439; NID:g4155724; PIDN:AAD06718.1; A;Experimental source: strain J99
C;Genetics:
A;Gene: pnp
C;Superfamily: polyribonucleotide nucleotidyltransferase alpha chain
                                                                                                                                                        A;Status: preliminary; nucleic acid sequence not shown; translation A;Molecule type: DNA A;Residues: 1-688 <TOM>
                                                                                                                                                                                                         Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H. Son, J.D.; Kelley, J.M.; Cotton, M.D.; Weldman, J.M.; Fujii, C.; Nature 388, 539-547, 1997
A; Authors: Wallin, E.; Hayes, W.S.; Borodovsky, M.; Karpk, P.D.; A; Title: The complete genome sequence of the gastric pathogen Hel A; Reference number: A64520; MUID:97394467
A; Accession: E64671
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R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, R Conternant, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McKe
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J.M.; Fujii, C.; Bowman,
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1 XXXGTXXXXXSKQXEEEAVRLXXXXXLKNGGXSSGAXXXXX
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Copyright (c) 1993 - 2000 Compugen Ltd
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    PIIO_HUMAN
SIF2_DROME
SIF1_DROME
SIF1_DROME
HRPZ_PSESY
TF2B_PYRHO
NDF1_MGSAU
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NDF1_MGUSAU
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NDF1_MGUSAU
NDF1_RAFI
PACLA
GIXA_RHIME
VP35_VARV
UP35_VARV
VP35_VARV
VP35_VARV
SIOF_AGUAE
CPXF_BRAJA
FL1_TOBAC
CPXF_GRAT
FZB_PYRMO
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P26349 heloderma s

P36938 escherichia

O14682 homo sapien

P91620 drosophila

P91621 drosophila

P35674 pseudomonas

O50151 pyrococcus

O60420 mesocricetu

O604289 rattus norv

P26813 african swi

O04973 lycopersico

P39945 saccharomyc

P3412 caenorhabdi

P18688 oryctolagus

P23648 lactococcus

O8739 variola vir

O66875 aquifex aeo

O59203 bradyrhizob

Q40504 nicotiana t

P15715 rhizobium m

O60563 mesocricetu

O01500 p genome po

D30427 rattus norv

O60427 rattus norv
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EXE3_HELHO STANDARD; PRT; 39 AA.

AC P20394;

DT 01-FEB-1991 (Rel. 17, Created)

DT 01-FEB-1992 (Rel. 21, Last sequence update)

DT 01-MY-1992 (Rel. 22, Last annotation update)

DE EXENDIN-3.

OS Heloderma horridum horridum (Mexican beaded lizard).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Helodermatidae
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P35439 rattus norv	_			Q01345 oncorhynchu			Q08890 mus musculu			P39778 bacillus su	Q9t1q7 bacteriopha

ALIGNMENTS

RP	R O O O O S	DD DT	RESULT EXE4_H ID E	Qy VQ	M B Q	QS	E X	DR DR	DR:	D DR	66	28	R	R	R X	2 PS	RP	RN	8 8	3
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STRAIN-K12 / MG1555;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A
Riley M., Collado-Vides J., Glasner J.D.,
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PIR; A42486;
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Eng J., Kleinman W.A., Singh L., Singh G., Raufman "Isolation and characterization of exendin-4, an ex "Isolation and characterization of exendin-4, an ex from Heloderma suspectum venom. Further evidence for receptor on dispersed acini from guinea pig pancrea J. Biol. Chem. 267:7402-7405(1992).

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INTERPRO; IPR000532; -
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TE; PS00260; GLUCAGON;
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21; Conservative
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for an exendin
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      Burland V. yhew G.F.,
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MBL outstation -
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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yano M., Horiuchi T.;
"A 718-kb DNA sequence of the Escherichia corresponding to the 12.7-28.0 min region DNA Res. 3:137-155(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J. Biol
                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Phosphoglucomutase. II. Purification and phosphoglucomutase from Escherichia coli."
J. Biol. Chem. 239:2741-2751(1964).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mori H., Motomura K., Nakamura Y., Nashi
Sampei G., Seki Y., Tagami H., Takemoto
Yano M., Horiuchi T.;
                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                        INTERPRO; IPRO01485; -. PFAM; PF00408; PGM_PMM; 1. PROSITE; PS00710; PGM_PMM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- FUNCTION: THIS ENZYME PARTICIPATES
SYNTHESIS OF GLUCOSE.
-!- CATALYTIC ACTIVITY: ALPHA-D-GLUCOS!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell 77:413-426(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=94236686; PubMed=8011018;
Lu M., Campbell J.L., Boye E., Kleckner N.;
"SeqA: a negative modulator of replication initiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-K12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1-20
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ECOGENE; EG12144; PGM.
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                                                                                                                                               Match
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ce 277:1453-1474(1997).
                                                                            KQIEKEAVEIVSEVLKN
                                                                                                  KOXEEEAVRLXXXXLKN
                                                                                                                                                                                                                                                                        T., Aiba H., Baba T., Fujita K., o K., Inada T., Itoh T., Kajihara S., Kitagawa M., Makino K., Masuc
                                                                                                                       l similarity
9; Conserve
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                                                                                                                                                                                                     Phosphorylation.
146 146
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                                                                                                                         Conservative
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Pred. No.
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666B6B9C2F2ECD59 CRC64;
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Kajihara M., Kanai K., Kashimoto
K., Masuda S., Miki T., Mizobuchi
Y., Nashimoto H., Nishio Y., Sait
Takemoto K., Wada C., Yamamoto Y.
                                                                                                                          Mismatches
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buchi K.,
Saito N.,
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RESULT 5
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Matches 9
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15-JUL-1999
15-JUL-1999
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SEQUENCE
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MEDLINE=97449378; Pubmed=9305847;

POLYAK K., Xia Y., Zweier J.L., Kinzler K.W., Vog
"A model for p53-induced apoptosis.";

Nature 389:300-306(1997).

-!- SIMILARITY: BELONGS TO THE KELCH/MIPP FAMILY.

-!- SIMILARITY: CONTAINS 1 BTB/POZ DOMAIN.
Sone M., Hoshino M., Suzuki E., Kuroda Saigo K., Nabeshima Y.-I., Hama C.; "Still Life, a protein in synaptic term to GDP-GTP exchangers"; Science 275:543-547(1997).
                                                                                                                                                                                                                                                                                                                           STILL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila melanogaster (Fruit fly).

Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc

Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                  SIF2_DROME P91620;
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                                                                                                                                                                            SEQUENCE FROM N.A.
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PF01344;
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9; Conser
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                                                                                                                                                                                                                                                                                                                        9 (Rel. 38, Created)
9 (Rel. 38, Last sequence update)
9 (Rel. 38, Last annotation updat
PROTEIN TYPE 2 (SIF TYPE 2).
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nilarity 45.0%;
Conservative
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299
299
344
392
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Kelch; 3.
)97; BTB; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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447
343
391
447
58314 N
                                                                                                         PubMed=8999801;
M., Suzuki E., K
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BTB.
3 APPROXIMATE 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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                                                                   terminals
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВВ
                                                                                                           Kaibuchi K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KELCH TANDEM REPEATS
                                                                   of
                                                                                                                                                                                                                                        Brachycera; Muscomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vogelstein
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                                                                Drosophila homologous
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      BARAB
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SIF1_DROME
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  15-JUL-1999
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SIF1

STANDARD;

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SIF1_DROME P91621;

(Rel. (Rel. (Rel.

38, 40,

Created)
Last sequence update)
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Query Match
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 1761
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saigo K., Nabeshima Y.-I., Hama
Science 275:1405-1405(1997).
-!- FUNCTION: REGULATES SYNAPTION
                                                                                                                                                                                                                                                                                                                                                         Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a obstween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERPRO; IPRO01478; -.
INTERPRO; IPRO01849; -.
PFAM; PF00595; PDZ; 1.
                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                         REPEAT
                                                                                                                                                                                                                                                                                                                                                                                      Guanine-nucleotide releasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FLYBASE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; D86546;
                            12 KOXEEEAVRLXXXXLKNGGXSSGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEGMENT OF THE CENTRAL NERVOUS SYSTEM. AT STAGE 17, EXPRESSION OCCURS IN EACH BECOMES RESTRICTED TO THE SYNAPTIC REGIONS OF THE BRAIN AND VENTRAL NERVE CORD, WHERE SYNAPSES UNDERCO MATURATION.

SIMILARITY: CONTAINS 1 DBL-HOMOLOGY DOMAIN (DH).

SIMILARITY: CONTAINS 2 PH DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: REGULATES SYNAPTIC DIFFERENTIATION THROUGH THE ORGANIZATION OF ACTIN CYTOSKELETON POSSIBLY BY ACTIVATING RHO-LIKE GTPASSS. IS LIKELY A FACTOR IN THE CASCADE OF RAC1 OR CDC42 IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SYNAPTIC TERMINALS.
ALTERNATIVE PRODUCTS: 2 ISOFORMS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: LOCALIZES TO THE SUBMEMBRANOUS REGION OF
RQIIRESVRNMSIPMKNFGGSSGS
                                                                                                                                                                                                                                                                                                                                                                                                                                 PF00169; PH; 2.
PF00621; RhoGEF; 1
                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           )86546; BAA13108.1; -
); FBgn0019652; sif.
(C); IPR000219; -
(C); IPR001331; -
                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                      Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hoshino
                                                                                                                                                    154.
225.
819.
1184.
1410.
1674.
467.
646.
1295.
1898.
                                                                                                                                      2044 AA;
                                                           Conservative
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                                                 PH.
PDZ.

DH.
67 PH.
470 POLY-PRO.
649 POLY-ARG.
POLY-PRO.
POLY-PRO.
POLY-PRO.
POLY-GLN.
POLY-PRO.
DB 1; Length
10;
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118
178
249
937
1273
11673
11673
11767
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649
11298
11909
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                                                                                                                                                                                                                                                                                                                                                                                      factor;
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                                                                                                                                                                                                                                                                                                                                                      X 25 AA APPROXIMATE REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kuroda
                                                                                                                                                                                                                                                                                                                                                                                      Developmental
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                                                                                        Length 2044;
                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   restrictions
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                                                                                                                                                                                                                                                                                                                                                                                      Synapse;
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                                                           Gaps
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Query Match
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Matches 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sone M., Hoshino M., Suzuki
Saigo K., Nabeshima Y.-I.,
Science 275:1405-1405(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Saigo K., Nabeshima Y.-I., Hama C.; "Still life, a protein in synaptic terminals of Drosophila homologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-97153054; PubMed-8999801;
Sone M., Hoshino M., Suzuki E., K
Saigo K., Nabeshima Y.-I., Hama C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota;
Pterygota;
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                                                                                                                                                                                                                                                                                                                                  FLYBASE; FBgn0019652; sif.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GDP-GTP exchangers.";
Lence 275:543-547(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SYNAPTIC TERMINALS.
ALTERNATIVE PRODUCTS: 2 ISOFORMS; SIF TYPE 1 (SHOWN HERE) AND ALTERNATIVE PRODUCTS: 2 ISOFORMS; SIF TYPE 1 (SHOWN HERE) AND TYPE 2 (AC P91620); ARE PRODUCED BY ALTERNATIVE SPLICING.

DEVELOPMENTAL STAGE: AT STAGE 14, EXPRESSION OCCURS IN EACH SEMENT OF THE CENTRAL NERVOUS SYSTEM. AT STAGE 17, EXPRESSION BECOMES RESTRICTED TO THE SYNAPTIC REGIONS OF THE BRAIN AND VENTRAL HERVE CORD, WHERE SYNAPSIS UNDERGO MATURATION.

SIMILARITY: CONTAINS 1 DBL-HOMOLOGY DOMAIN (DH).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: REGULATES SYNAPTIC DIFFERENTIATION THROUGH THE ORGANIZATION OF ACTIN CYTOSKELETON POSSIBLY BY ACTIVATING RHO-LIKE GTPASES. IS LIKELY A FACTOR IN THE CASCADE OF RAC1 OR CDC42 IN THE ORDRONS.

SUBCELLULAR LOCATION: LOCALIZES TO THE SUBMEMBRANOUS REGION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LIFE
                                                                                                                                                                                                                                                                                                                                               D86547; BAA13109.1;
  l Similarity
10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Neoptera; Endopterygota; Diptera; Brachycera; Musc
a; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      melanogaster (Fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEIN
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE
            4 3
1 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 E., Kuroda
Hama C.;
Score 41; DB Pred. No. 29; 4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kuroda
C.;
                                                             D3BDCC10A94D9E6C CRC64;
                                                                                                                                                                                                          Developmental protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   s.,
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                        DB 1;
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  10;
                        Length 2064;
  Indels
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 Gaps
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                                                                                                        RESULT
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Best Local
                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                   Hypersensitive : DOMAIN 210 REPEAT 210 REPEAT 265 DOMAIN 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-1994
01-JUN-1994
15-DEC-1998
                                                                                                                                                                                                                                     REPEAT
REPEAT
SEQUENCE
                    TF2B_PYRHO STANDARD; PRT; 3
59-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence up
30-MAY-2000 (Rel. 39, Last annotation
TRANSCRIPTION INITIATION FACTOR IIB HC
TFB OR PH1482
                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced between the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are use by non-profit institutions as long as its modified and this statement is not removed. Usage entitles requires a license agreement (See http://worsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1781
                                                                                                                                                                                                                                                                                                                         EMBL;
PIR; /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in plants.";
Cell 73:1255-1266(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             He S.Y., Huang H.-C., Collmer A., "Pseudomonas syringae pv. syringae secreted via the Hrp pathway and el
                                                                                              PYRHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-93313957; PubMed-8324821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HARPIN-PSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P35674;
            Pyrococcus horikoshii
Archaea; Euryarchaeota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12
                                                                                                                                          27
                                                                                                                                                           5 TXXXXXSKQXEEEAVRLXXXXLKNG
                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: ELICITS THE HYPERSENSITIVE RESPONSE (HR)
UPON INFECTION. HARPIN ELICITS HR IN NON-HOSTS AND
REQUIRED FOR PATHOGENICITY IN HOST PLANTS.
SUBCELLULAR LOCATION: SECRETED; VIA THE HRP SECRET
MISCELLANEOUS: DIFFERENT PLANTS EXHIBIT DIFFERENT
SENSITIVITY TO HARPIN-PSS.
                                                                                                                                                                                                                                                                                                                       , L14775; AAA258
A40706; A40706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KQXEEEAVRLXXXXLKNGGXSSGA
                                                                                                                                          TTGSTSSKALQEVVVKLAEELMRNG
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                                                                                                                                                                                 l Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   as syringae (pv. Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Rel.
(Rei.
(Rel.
                                                                                                                                                                                                                                       341 AA;
                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                    AAA25839.1;
                                                                                                                                                                                                                                                                                                                response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29, Created)29, Last sequence update)37, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND SEQUENCE
                                                                                                                                                                                           32.2%;
                                                                                                                                                                                                                                      34721 MW;
                                                                                                                                                                                                                                                                                         Repeat.
2 x 7
1-1.
 Thermococcales; Thermococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           syringae)
                                                                                                                                                                                  4.
                                                                                                                                                                                  Score 39; DB
Pred. No. 10;
4; Mismatches
                                                                                                                                                                                                                                                                    1-2.
                                                                                                                                                                                                                                                 222
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                                                                                                                                          5
                                                                                                                                                             29
                                                                                                                                                                                                                                      75FB7329B5380179 CRC64;
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elicits the hypersensitive
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                               on update)
                                                    update)
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SEQUENCE FI
STRAIN-OT3;
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          Transcription regulation; Repeat; Zinc-finger.

ZN_FING 7 29
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INTERPRO; IPR000812; --
PFAM; PF00382; transcript_fac2;
PRINTS; PR00685; TIFACTORIIB.
PROSITE; PS00782; TFIIB; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE-95293222; PubMed-7774807;
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Eukaryota; Metazoa; (
Mammalia; Eutheria; F
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TROD1 OR NEUROD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Res. 5:55-76(1998).
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7 (Rel. 35, Last sequence update)
8 (Rel. 37, Last annotation update)
8 (Rel. 37, Last annotation update)
DIFFERENTIATION FACTOR 1 (BETA-CELL E-BOX TRANS-ACTIVATOR
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           ABUNDANT IN PANCREATIC ALPHA- AND BETA
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Best Local :
                                                                                                                                                helix-loop-helix protein.";

Science 268:836-844(1995).

-i- FUNCTION: ACTS AS A DIFFERENTIATION FACTOR DURING NEUROGENESIS.

TRANSCRIPTIONAL ACTIVATOR. BINDS TO THE INSULIN GENE E-BOX.

-i- SUBCULIT: EFFICIENT DNA BINDING REQUIRES DIMERIZATION WITH ANOTHE

BHLH PROTEIN. HETERODIMER WITH E47.

-i- SUBCELLULAR LOCATION: NUCLEAR (POTENTIAL).

-i- TISSUE SPECIFICITY: EXPRESSED IN DIFFERENTIATING NEURONS OF

BOTH THE CENTRAL AND PERIPHERAL NERVOUS SYSTEMS.

-i- DEVELOPMENTAL STAGE: EXPRESSED DURING EMBRYONIC DEVELOPMENT.

-i- SIMILARITY: BELONGS TO THE BASIC RELIX-LOOP-HELIX (BHLH) FAMILY

TRANSCRIPTION FACTORS. "ATONAL" SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
NEUROGENIC DIFFERENTIATION FACTOR 1.
NEUROD1 OR NEUROD.
MUST MUSTALIANT AND MUSTALIAN
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This SWISS-PROT entry is copyright. It is produced through a cobetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-MF1, AND 129/SV;
MEDLINE-95273957; PubMe
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Mammalia; Eutheria;
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INTERPRO; IPR003015; -.
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39763 MW;
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erg S.M., Snider
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Rodentia;
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42.1%;
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NUCLEAR LOCALIZATION SIGNAL (POTENTIAL)
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                                                                                 Ahmad I., Acharay H.R.;

Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.

-:- FUNCTION: ACTS AS A DIFFERENTIATION FACTOR DURING NEUROGENESIS.

-:- FUNCTION: ACTIVATOR. BINDS TO THE INSULIN GENE E-BOX.

-:- SUBUNIT: EFFICIENT DNA BINDING REQUIRES DIMERIZATION WITH ANOTHE BHLH PROTEIN. HETERODIMER WITH E47.

BHLH PROTEIN. HETERODIMER WITH E47.

-:- SUBCELLULAR LOCATION: NUCLEAR (POTENVIAL).

-:- SIMILARITY: BELONGS TO THE BASIC HELLX-LOOP-HELIX (BHLH) FAMILY TRANSCRIPTION FACTORS. "ATONAL" SUBFAMILY.
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DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997 (Rel. 35, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
NEUROGENIC DIFFERENTIATION FACTOR 1 (BASIC HELIX-LOOP-HELIX FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                               (BHF-1).
NEUROD1 OR NEUROD
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                                                                                                                                                                                                              STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                         SEQUENCE OF 88-200
                                                                                                                                                                                                                                                    Biochem.
                                                                                                                                                                                                                                                                       "Cloning and expression of a rat brain
                                                                                                                                                                                                                                                                                            Nakanishi
                                                                                                                                                                                                                                                                                                         Kawakami
                                                                                                                                                                                                                                                                                                                      MEDLINE-96220182;
                                                                                                                                                                                                                                                                                                                                    TISSUE-CEREBELLUM;
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTERPRO; IPR001092;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match
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3L; U28888; AAC52204.1; .
5P; P10085; 1MDY.
5; MGI:1339708; NEUROD1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEDELEAMNAEEDSLRNGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KQXEEEAVRLXXXXLKNGG
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ing; Nuclear protein; Transo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 requires
                                                                                                                                                                                                                                                                                             H., Maruyama H., Yasunami M.,
I S., Nakamura S.:
                                                                                                                                                                                                                                                   Biophys.
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42.1%;
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NUCLEAR LOCALIZATION SIGNAL (POTENTIAL).
BASIC DOMAIN.
HELIX-LOOP-HELIX MOTIF (BY SIMILARITY).
POLY-GLU.
POLY-GLU.
POLY-LYS.
POLY-LYS.
B6626E1315E31027 CRC64;
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Pred. No. 16;
3; Mismatches
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EMBL; D82074; BAA11535.1; -.
EMBL; U80603; AAB38744.1; -.
HSSP; P10085; 1MDY.
INTERPRO; IPR001092; -.
INTERPRO; IPR003015; -.
INTERPRO; IPR003015; -.
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SEQUENCE
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01-AUG-1992 (Rel. 23, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
01-OCT-1996 (Rel. 34, Last annotation update)
DNA LIGASE (EC 6.5.1.1) (POLYDEOXYRIBONUCLEOTIDE SYNTHASE [ATP]).
African swine fever virus (isolate Malawi Lil 20/1) (ASFV).
Viruses; dsDNA viruses, no RNA stage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASFM2
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or send an email t
                     use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                          "Nucleotide sequence of a 55 kbp
genome of a pathogenic African sv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=94292916; PubMed-8021596;
Dixon L.K., Twigg S.R.F., Baylls
Hammond J.M., Smith G.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-92310959; PubMed=1614852;
Hammond J.M., Kerr S.M., Smith G.L., Dix
"An African swine fever virus gene with
Nucleic Acids Ros. 20:2667-2671(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA_BIND
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Gen. Virol. 75:1655-1684(1994).

GENCTION: THIS PROTEIN SEALS DURING DNA REPLICATION, DNA RECOMBINATION AND DNA REPAIR NICKS IN DOUBLE-STRANDED DNA.

IT IS NOT ESSENTIAL FOR VIRAL REPLICATION AND RECOMBINATION CATALYTIC ACTIVITY: ATP + (DEOXYRIBONUCLEOTIDE)(N) + AMP + PYROPHOSPHATE + (DEOXYRIBONUCLEOTIDE)(M) - AMP + PYROPHOSPHATE +
                                                                                           s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the E European Bioinformatics Institute. There are no rest by non-profit institutions as long as its content
                                                                                                                                                                                                          (DEOXYRIBONUCLEOTIDE)(N+M).
SIMILARITY: BELONGS TO THE ATP-DEPENDENT DNA LIGASE FAMILY.
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8; Conser
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email to license@isb-sib.ch).
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6LU-RICH (ACIDIC).
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NUCLEAR LOCALIZATION SIGNAL (PORTO)
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POLY-LYS.
357 AA; 40000 MW; F773637E64D3E99E CRC64;
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BAA11535.1; -.
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ed. No. 16;
Mismatches
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EMBL; X71982; CAA50805.1; --
PIR; S23018; S23018
INTERPRO; IPRO00977;
PFAM; PF01068; DNA_ligase; J
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30-MAY-2000 (Rel. 3
30-MAY-2000 (Rel. 3
2-ISOPROPYLMALATE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFAM, PF01068; DNA_LIGASE_A1;
PROSITE; PS00697; DNA_LIGASE_A2;
PROSITE; PS00333; DNA_LIGASE_A2;
PROSITE; PS50160; DNA_LIGASE_A3;
DNA_TOPAIT; DNA replication; DNA_ATPAINATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYNTHASE A)
                               PROSITE; PS00815; AIPM_HOMOCIT_SYNTH_1;
PROSITE; PS00816; AIPM_HOMOCIT_SYNTH_2;
Leucine biosynthesis; Lyase.
                                                                                                                                                                                                                  EMBL; AF004165; AAB61598.1; HSSP; P27320; 1DOY.
                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                      INTERPRO; IPR000891; -. INTERPRO; IPR002034; -.
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"Cloning of two L.
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pennellii 2-isopropylmalate synthase cDNA
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SYNTHASE A (EC 4.1.3.12) (ALPHA-ISOPROPYLMALATE
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Query Match Best Local Similarity

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                                                                                                                                                                                                                                                                                                                                                              CAEEL
YKT1_CAEEL
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MEDLINE-94150718; PubMed-7906398; Wilson R., Ainscough R., Anderson K Bonfield J., Burton J., Connell M., Craxton M., Dear S., Du Z., Durbin 1
                                                                 STRAIN-BRISTOL N2;
MEDLINE-94150718;
                                                                                                                                                                                                     Caenorhabditis elegans
                                                                                                                                                                                                                          C07A9.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-S288C / AB972;
Dietrich F.S., Mulligan J.T.,
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                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                           Rhabditidae;
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R., Favello A.
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Best Local Similarity 30.0
Matches 9; Conservative
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PIR; S40706; S40706.

HSSP; P23807; IIXX.

WORMPEP; C07A9.1; CE00502.

INTERPRO; IPR001304; -.

PFAM; PF00059; lectin_c; 1.

PROSITE; PS50044; C_TYPE_LECTIN_2; UNKNOWN_1.

Hypothetical protein.

SEQUENCE 488 AA; 54717 MW; 9022691E47078814
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72.2 Mb of contiguous nucleotide sequence from chromosome III of C. elegans.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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O91h13 arabidopsis
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O9vzk7 drosophila
O9n9b6 leishmania
O9sn69 arabidopsis
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Q9uyt6 pyrococcus
075464 homo sapien
Q9upg9 homo sapien
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Q9rrj0 deinococcus
O42143 xenopus lae
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035709 mus musculu
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ALIGNMENTS

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Murphy L., Quail M., Harris D
Submitted (JUL-2000) to the E
EMBL; AL160493; CAB97908.1; -
NON_TER 234 234
SEQUENCE 234 AA; 24954 MW;
                                                                                             P89451 PRELIMINARY; PRT; 785 AA.
P89451;
01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
HERPES SIMPLEX VIRUS TYPE 2 (STRAIN HG52), COMPLETE
                                                                     UL28.
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01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
POSSIBLE HYPOTHETICAL 45.5 KDA PROTEIN (FRAGMENT).
LM26.290.
Herpes simplex virus (type 2).
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
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Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
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24954 MW;
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Matches
                                                                                                     O9Y717 PRELIMINARY; PRT; 141 AA.
O9Y717;
01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 14, Last sequence upda
01-JUN-2000 (TrEMBLrel. 14, Last annotation up
conserved hypothetical protein (Fragment).
Spaceli.11.
Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomyces.
Spaceli.21.
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EMBL; Z86099; CAB06753.1
INTERPRO: IPRO00501; -
PFAM; PF01366; PRTP; 1.
SEQUENCE 785 AA; 8524
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MEGEOCH D.J., Cunningham C., McIntyre G., Dolan A.;
"Comparative sequence analysis of the long repeat roadjoining parts of the long unique regions in the grandlex viruses types 1 and 2.";
J. Gen. Virol. 72:3057-3075(1991).
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J. Gen. Virol. 71:1387-1390(1990).
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MCGEOCh D.J., MOSS H.W., MCNab D., Frame M.C.;

"DNA sequence and genetic content of the HindIII 1
unique component of the herpes simplex virus type 2
identification of the gene encoding glycoprotein G.
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Barnett B.C., Dolan A., Telford E.A.R., Davison A.J
"A novel herpes simplex virus gene (UL49A) encodes
protein with counterparts in other herpesviruses.";
J. Gen. Virol. 73:2167-2171(1992).
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NCBI_TaxID=10310;
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10; Conser
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85240
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41.7%;
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Pred. No.
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x virus: type 2 strain HG5:
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Submitted (FEB-1998) to t
EMBL; AL021817; CAB40198.
INTERPRO; IPR002110; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20036896; PubMed=10567266; Mickey E.K., Peterson J.D. White O., Elsen J.A., Heidelberg J.F., Hickey E.K., Peterson D.D., Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Wamathevan J.J., Lam P., McDonald L., Utterback T., Zalewski C., Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R. Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C., Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C.,
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Science 286:1571-1577(1999)
EMBL; AE002079; AAF12045.1;
TIGR; DR2500; -
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Bacteria; Thermus/Deinococcus
NCBI_TaxID=1299;
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01-JUN-2000
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01-NOV-1998 (TIEMBLIEL 18, Last sequence update)
01-JUN-2000 (TIEMBLIEL 14, Last annotation update)
COAT PROTEIN (CAPSID PROTEIN).
CCAFRALION latent virus (CLV).
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PRINTS; PR00275; GLUCAGON.
PROSITE; PS00260; GLUCAGON;
PRODOM; PD002392; -; 1.
PRODOM; PD002700; -; 3.
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EMBL; AJ016697; CAA09306.1; -.
INTERPRO; IPR000052; -.
PFAM; PF00286; virus_P-coat; 1.
PRINTS; PR00332; POTXCARLCOAT.
PROSTITE; PS00418; POTEX_CARLAVIRUS_COAT;
PRODOM; PD000603; -; 1.
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MEDLIND-91324119; PubMed-1713905;
Meehan B.M., Mills P.R.;
"Nucleotide sequence of the 3'-te
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MEDLINE-97368292; PubMed-9223287,
Irwin D.M., Satkunarajah M., Wen
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Amphibia; Batrachia;
Xenopodiĥae; Xenòpus.
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Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                        33890 MW;
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Pred. No. 15;
5; Mismatches
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                                                                                                                              Score 41; DB
Pred. No. 17;
1; Mismatches
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                                                                                                                                                                                                                                                                                                        4456EBB53E174298 CRC64;
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                                                                                                                                                                                                 Length 306
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Best Local
      Matches
                                  Query Match
Best Local (
                                                                                                                                                                                                                      "NRP/B, a novel nuclear matrix protein, associates will is involved in neuronal differentiation.";
J. Cell Biol. 141:553-566(1998).
EMBL; APO59611; AAC26109.1; -.
INTERPRO; IPRO00169; -.
INTERPRO; IPRO00210; -.
INTERPRO; IPRO01798; -.
PEAM; PF00651; BTB; 1.
PFAM; PF01344; Kelch; 6.
PFAM; PF01344; Kelch; 6.
PFAM; PF01344; Kelch; 6.
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Q9UYT6;
Q1-MAY-2000
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01-NOV-1998
01-JUN-2000
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Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AJ248287; CAB50326.1; -.

INTERPRO; IPR001453; -.

INTERPRO; IPR002165; -.

PYROSITE; PS00339; AA_TRNA_LIGASE_II_2; UNKNOWN_1.

PROSITE; PS00339; AA_TRNA_LIGASE_II_2; UNKNOWN_1.

PROSITE; PS00339; AA_TRNA_LIGASE_II_2; UNKNOWN_1.
                                                                                                                                                                   Matrix pr
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-98234394; PubMed-9566959;
Kim T.-A., Lim J., Ota S., Raja S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pyrococcus abyssi.
Archaea; Euryarchaeota;
NCBI_TaxID=29292;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1998 (TremBirel. 08, 0
01-NOV-1998 (TremBirel. 08, 1
01-JUN-2000 (TremBirel. 14, 1
NUCLEAR MATRIX PROTEIN NRP/B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Avraham S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Heilig R.;
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9; Conser
   Similarity 45.
9; Conservative
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08, Last sequence up
14, Last annotation
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; Score 41; DB; Pred. No. 36; 3; Mismatches
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36;
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INTERPRO; IPRO00210; -.
INTERPRO; IPRO00210; -.
INTERPRO; IPRO01798; -.
R PFAM; PF00651; STB; 1.
R PFAM; PF001344; Kelch; 6.
R PFAM; PF01344; Kelch; 6.
R PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.
R PROSITE; PS00639; THOLL_PROTEASE_HIS; UNKNOWN_1.
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Q9UPG9;
01-MAY-2000
01-MAY-2000
01-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                O35709 PRELIMINARY; PRT; O35709; O1-JAN-1998 (TREMBLIEL 05, Created) O1-JAN-1998 (TREMBLIEL 05, Last sequence of the context o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          regulation in nervous system tumo: Exp. Cell Res. 242:470-477(1998). EMBL; AF005381; AAC64498.1; -.
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Mammalia; Eutheria;
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Metazoa; Chordata;
                                                                                                                                                                                                                                                           "ENC-1: a novel mammalian kelch-related gene specificathe nervous system encodes an actin-binding protein.";
J. Neurosci. 17:3038-3051(1997)
-i- FUNCTION: ACTIN-BLNDING PROTEIN INVOLVED IN THE RENEWRONAL PROCESS FORMATION AND IN DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                           Hernandez M.-C., Andres-Barquin P.J., Rubenstein J.L.R., Israel M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-98350113; Furnament P.J., F
Hernandez M.-C., Andres-Barquin P.J., F
"Cloning of human ENC-1 and evaluation
"Cloning of human ENC-1 unders.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ECTODERM-NEURAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-ALBINO SWISS; TISSUE-BRAIN; MEDLINE-97252647; PubMed-9096139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-ALBINO SWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE-98350113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
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                                                       TISSUE SPECIFICITY: PRIMARILY EXPRESSED IN THE NERVOUS SYSTEM. DEVELOPMENTAL STAGE: EXPRESSION IS HIGHLY DYNAMIC BUT MOSTLY RESTRICTED TO THE NS. OUTSIDE THE NS. EXPRESSION IS DETECTED IN THE ROSTRAL-MOST SOMITOMERE OF THE PRESOMITIC MESODERM, AT THE TIMES CORRESPONDING TO THE EPITHELIALIZATION THAT PRECEDES SOMITIMES CORRESPONDING TO THE EPITHELIALIZATION THAT PRECEDES SOMITIMES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OR ENC-1.
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9; Conservative
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(TIEMBLrel. 13, Last sequence update)
(TIEMBLrel. 14, Last annotation update)
URAL CORTEX-1 PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 41;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata;
Sciurognathi; Muridae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C0002116EA6EA1AB CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence update) annotation update) (ENC-1).
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n of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Martinez
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                                                                  SOMITE
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RESULT
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RX MEDLINE-20196006; PubMed=10731132;

RX Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,

RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA Amanatides P.G., Scherer S.E., Richards S., Ashburner M., Henderson S.N.,

RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,

RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,

RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,

RA Brandon R.C., Rögers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Abril J.F., Agbayani A., An H.-J., Andrews Pfannkoch C., Baldwin D.,

RA Abril J.F., Agbayani A., An H.-J., Bayraktaroglu L., Beasley E.M.,

RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,

RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,

RA Borkova D., Botchan M.R., Bouck J., Bhandari D., Botshakov S.,

RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,

RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,

RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,

RA Geblos B., Dolcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,

RA Geblos B., Dolcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Gelbart W.M., Glasser K.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,

RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J.,

RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J.,

RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J.,

RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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01-MAY-2000
01-OCT-2000
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                           Pterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CG5256
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO; IPR000210; -.
INTERPRO; IPR001798; -.
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-!- SUBCELLULAR LOCATION: CYTOPLASMIC.
CYTOSKELETON.
                                                                                                                                                                                                                                                                                                                                        STRAIN-BERKELEY;
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                             Ephydroidea; Drosophilidae;
NCBI_TaxID=7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               262
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U65079; AAB64206.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                           Neoptera;
                                                                                                                                                                                                                                                                                                                                                                                              Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Neoptera; Endopterygota; Diptera; Brachycera; Musc
ı; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                        melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel.) (TrEMBLrel.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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388
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13,
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BTB/POZ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
Last sequence update)
Last annotation update)
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                             Brachycera; Muscomorpha;
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A Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
A George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
A George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
A Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
A Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
A Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
A Barandon R.C., Rogers Y.-H.C., Blazej R.G., Nelson C.R., Miklos G.L.G.,
A Baril J.F., Agbayani A., An H.-J., Andrews Pfannkoch C., Baldwin D.,
A Ballew R.M., Basw A., Baxendale J., Bayaktaroglu L., Beasley E.M.,
A Ballew R.M., Basw A., Baxendale J., Bhandari D., Bolshakov S.,
A Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
Butlis K.C., Busam D.A., Butler H., Cadleu E., Center A., Chandra I.,
A Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
A de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 10
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FLYBASE; FBgn0035628; CG5256.
INTERPRO; IPR000319; -
INTERPRO; IPR001331; -
INTERPRO; IPR001478; -
INTERPRO; IPR001478; -
INTERPRO; IPR0011649; -.
INTERPRO; IPR003116; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musco
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CG5406
CG5406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9VRN8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AE003565;
                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=20196006; PubMed=10731132;
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 KQXEEEAVRLXXXXLKNGGXSSGA 35 : | |:|| |:|| : || | ||:|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PF00169; PH; 2.

PF00169; PH; 2.

PF001621; RhoGEF; 1.

; PF02196; RBD; 1.

ITE; PS00741; GDS_CDC24; UNKNOWN_1.

SITE; PS50003; PH_DOMAIN; 1.

SITE; PS50003; PH_DOMAIN; 1.

SITE; PS50003; PH_DOMAIN; 56DlA4D5971FE5B9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RQIIRESVRNMSIPMKNFGGSSGS 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF50755.1; -.
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13,
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Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 41; DB Pred. No. 1.9e-4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brachycera; Muscomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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P PSSGULT P PSGULT P PSGUL
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Best Local S
Matches 10
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INTERPRO; IPRO01331; ...
INTERPRO; IPRO01478; ...
INTERPRO; IPR001849; ...
INTERPRO; IPR00186; ...
PFAM; PF00169; PH; 2...
PFAM; PF00621; RhoGEF; 1...
PFAM; PF002196; RBD; 1...
PFAM; PF002196; RBD; 1...
PROSITE; PS00074; GDCQ24; UNKNC PROSITE; PS00073; PH_DOMAIN; 1.
SEQUENCE 2637 AA; 293079 MW; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-1997
01-JAN-1998
01-MAY-2000
                                                                                                                  MEDLINE-98000887; PubMed-9341680; Beloin C., Ayora S., Exley R., Hirschbei Kasahara Y., Alonso J.C., Le Hegarat F.; "Characterization of an Irp-like (IrpC) Mol. Gen. Genet. 256:63-71(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1769
    SEQUENCE FROM N.A STRAIN=168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Firmicutes; Bacillus/Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P96631;
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                                                                                                                                                                                                                                                                                                                                      STRAIN-168;
                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID-1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacillus subtilis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROBABLE
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                                                                                                                                                                                                                                                                                                                                                                    FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPRESSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Tremblrel. 03, (Tremblrel. 05, ) (Tremblrel. 13, EPRESSOR PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacillus/Clostridium group;
us group; Bacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
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Pred. No. 1.9e
4; Mismatches
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                                                                                                                                                                                                           Hirschbein
egarat F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76F475BA3CBE961B CRC64;
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1.9e+02;
                                                                                                                                                                 gene
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                                                                                                                                                                     from
                                                                                                                                                                                                                                             Ogasawara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2637
                                                                                                                                                                 Bacillus subtilis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fleischmann
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K.A.,
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RESULTT
OPULBA
ID Q0
ID Q0
ID Q0
ID Q1
ID 
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RA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,
RA Borriss R., Bourschi C.V., Caldwell B., Capuano V., Carter N.M.,
RA Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Chim K.D., Errington J., Fabret C., Ferrari E., Foulger D.,
RA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RA Guiseppi G., Guy B.J., Haga K., Haiech J., Harwood C.R., Henaut A.,
RA Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,
RA Kobayashi Y., Koetter P., Koningstein G., Kroph S., Kumano M.,
RA Kobayashi Y., Koetter P., Koningstein G., Kroph S., Kumano M.,
RA Kobayashi Y., Koetter P., Koningstein G., Kroph S., Kumano M.,
RA Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,
RA Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,
RA Parro V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M.,
RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,
RA Sato T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,
RA Sato T., Scanlan E., Takagi T., Takahashi H., Takemaru K.,
RA Sarokin A., Tanakoshi A., Tanaka T., Terpstra P., Tognoni A.,
RA Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto R., Yata K.,
RA Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto R., Yata K.,
RA Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto R., Yata K.,
RA Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto R., Yata K.,
RA Winters P., Wedler E., Wedler H., Watzenegger T.,
RA Winters P., Wedler E., Wedler H., Watzenegger T.,
RA Winters P., Wedler E., Wedler H., Yasumoto R., Yata K.,
RA Winters P., Wedler E., Wedler H., Wedler H., Watzenegger T.,
RA Winters P., Wedler H., Yasumoto R., Yata K.,
RA Winters P., Wedler H., Wedler H., Wedler H., Wedler H., Wedler H
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                                                                                       SEQUENCE FROM N.A.
STRAIN-FRIEDLIN;
Wedler H., Hilbert H.,
Quail M., Rajandream !
Submitted (DEC-1999) !
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Q9U184;
Q1-MAY-2000 (TIEMBLrel. 13, Created)
Q1-MAY-2000 (TIEMBLrel. 13, Last sequence update)
Q1-MAY-2000 (TIEMBLREL. 13, Last annotation update)
Q1-MAY-2000 (TIEMBLREL. 13, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                           Leishmania major.
Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kunst F., Ogasawara N., Yoshikawa H., Danchin Submitted (NOV-1997) to the EMBL/GenBank/DDBJ EMBL; AB001488; BAA19320.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; 299106; CAB12289.1; -. INTERPRO; IPRO01387; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EFDEETARLVKKALKNG 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   390:249-256(1997).
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AA; 14649
                                                                             H.,
m M.
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                                                                                                Duesterhoeft A.,
.A., Barrell B.G.,
o the EMBL/GenBan
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Sequence features of the regions
TAC and BAC clones.";
DNA Res. 7:217-221(2000).
EMBL; AP002041; BAB02607.1; -
SEQUENCE 455 AA; 48958 MW; E
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RNA-BINDING PROTEIN-LIKE.
Arabidopsis thallana (Mouse-ear cress).
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EMBL; AL133468; CAB63133.1; -.
Hypothetical protein.
SEQUENCE 374 AA; 41675 MW; AA3
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SUMMARIES

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ALIGNMENTS

RESULT P89451 ID P AC P DT 0 DT 0 DT 0 DT 0 OC U	Db Db	RP RC RC SQ	R O O O O O D D D D D D D D D D D D D D	RESULT Q9NM02 ID Q
ULT 2 P89451 P89451, P89451; Ol-MAY-1997 (TrEMBLrel. 03, Created) Ol-MAY-1997 (TrEMBLrel. 03, Last sequence update) Ol-MAY-2000 (TrEMBLrel. 13, Last annotation update) HERPES SIMPLEX VIRUS TYPE 2 (STRAIN HG52), COMPLETE GENOME. UL28. Herpes simplex virus (type 2). Viruses; dsDNA viruses, no RNA stage; Herpesviridae;	Query Match 36.4%; Score 44; DB 5; Length 234; Best Local Similarity 44.4%; Pred. No. 3.6; Matches 12; Conservative 3; Mismatches 10; Indels 2; Gaps 1; 11 SKOXEEEAVRLXXXXLKNGGXSSGA 35 1: : :	SEQUENCE FROM N.A. STRAIN-FRIEDLIN; Murphy L., Quail M., Harris D., Rajandream M., Ivens A., Barrell B.; Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AL160493; CAB97908.1; NON_TER 234 234 SEQUENCE 234 AA; 24954 MW; OF013FAB8A1196FA CRC64;	Ol-OCT-2000 (TIEMBLTel. 15, Created) Ol-OCT-2000 (TIEMBLTel. 15, Last sequence update) Ol-OCT-2000 (TIEMBLTel. 15, Last sequence update) Ol-OCT-2000 (TIEMBLTel. 15, Last annotation update) POSSIBLE HYPOTHETICAL 45.5 KDA PROTEIN (FRAGMENT). LM26.290. Leishmania major. Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Leishmania. NCBL_TaxID-5664;	JUT 1 V02 Q9NM02 PRELIMINARY; PRT; 234 AA.

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                                                                            Q9Y717 PRELIMINARY; PRT; 141 AA.
Q9Y717;
Q9Y717;
Q9Y717;
Q1-NOV-1999 (TrEMBLrel. 12, Created)
Q1-NOV-1999 (TrEMBLrel. 12, Last sequence update)
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CONSERVED HYPOTHETICAL PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=92356101; PubMed=1322965;
Barnett B.C., Dolan A., Telford E.A.R.,
"A novel herpes simplex virus gene (UL4)
protein with counterparts in other herpe
J. Gen. virol. 73:2167-2171(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Comparative DNA sequence analysis of different strains of herpes simplex a truncated UL41 product.";
J. Gen. Virol. 71:1387-1390(1990).
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McGeoch D.J., Moss H.W., McNab D., Frame M.C.;
"DNA sequence and genetic content of the HindIII i
unique component of the herpes simplex virus type
identification of the gene encoding glycoprotein of
                    Schizosaccharomycetaceae;
NCBI_TaxID=4896;
                                            Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetales;
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EMBL; ALO21817; CAB40198.1; -
INTERPRO; IPRO02110; -
NON TER 141
SEQUENCE 141
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Submitted (FEB
[2]
SEQUENCE FROM N
STRAIN-972H-;
                         042143;
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01-JAN-1998
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PROGLUCAGON
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01-MAY-2000
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White O., Eisen J.A., Heidelberg J.F., Hickey E.K., Peterson J.D., Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Vamathevan J.J.; Lam P., McDonald L., Utterback T., Zalewski C., Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D. Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical SEQUENCE 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    radiodurans R1.";
Science 286:1571-1577(1999).
EMBL; AE002079; AAF12045.1;
TIGR; DR2500; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Deinococcus radiodurans.
Bacteria; Thermus/Deinococcus
NCBI_TaxID=1299;
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(TrEMBLrel.
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(TrEMBLrel. 13, Last sequence update)
(TrEMBLrel. 14, Last annotation update)
L 17.0 KDA PROTEIN.
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the EMBL/GenBank/DDBJ
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                                                                                                                          Created)
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frog).
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Meehan B.
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PRINTS; PR00275; GLUCAGON;
PROSITE; PS00260; GLUCAGON;
PRODOM; PD002392; -; 1.
PRODOM; PD002700; -; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The xenopus proglucagon gene encodes novel GLP-1 insulinotropic properties."; Proc. Natl. Acad. Sci. U.S.A. 94:7915-7920(1997). EMBL; AF004432; AAB65660.1; -.
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Carnation latent virus (CLV).
Viruses; ssRNA positive-strand viruses,
NCBL_TaxID-12164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-JUN-2000 (TrEMBLrel. 14,
                                                                                                                                                                                                                                                                                                     PRINTS; PR00232; POTXCARLCOAT.
PROSITE; PS00418; POTEX_CARLAVIRUS_COAT;
PRODOM; PD000603; -; 1.
                                                                                                                                                                                                                                                      SEQUENCE 306 AA;
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EMBL; AJ010697; CAA09306.1; -.
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MEDLINE=91324119; PubMed=1713905;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted
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                                                                                                                                                                                                                                                                                                                                                                                           PFAM; PF00286; virus_P-coat; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Meehan B.M., Mills P.R.;
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KLKEFNSQNLTAGELKNGGFESG
                                               KQXEEEAVRLXXXXLKNGGXSSG
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10; Conserv
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                                                                                                             Conservative
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; Pred. No. 15;
5; Mismatches
                                                                                                    Score 41; DB Pred. No. 17; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                      4456EBB53E174298 CRC64;
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17;
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                                                                                                                                                                   Length 306;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266;
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                                                                                                                                        SQUED DRACE TO DESCRIPTION OF THE PROPERTY OF 
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PORTOR RESIDENT RESID
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075464
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Best Local S
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Q9UYT6;
Q1-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     075464 PRELIMINARY; PRT; 589 AA. 075464; 01-NOV-1998 (TREMBLREL. 08, Created) 01-NOV-1998 (TREMBLREL. 08, Last sequence update) 01-JUN-2000 (TREMBLREL. 14, Last annotation updat NUCLEAR MATRIX PROTEIN NRP/B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Pyrococcus abyssi genome sequence: insights into archistructure and evolution.";
Submitted (JUL-1999) to the EMBL/GenBank/DDBJ database:
EMBL; AJ240287; CAB50326.1; -.
INTERPRO; IPR001453; -.
INTERPRO; IPR002106; -.
INTERPRO; IPR002106; -.
PFAM; PF00994; MOCF_Diosynth; 1.
PROSITE; PS00339; AA_TRNA_LIGASE_II_2; UNKNOWN_1.
SEQUENCE 402 AA; 43327 MW; 44545EDA70F6A78E CRC64;
                                                                                                                                                                               PROSITE;
Matrix pr
                                                                                                                                                                                              INTERPRO; IPRO0019; -.
INTERPRO; IPRO00210; -.
INTERPRO; IPRO00210; -.
INTERPRO; IPRO001798; -.
PFAM; PF00651; BTB; 1.
PFAM; PF01344; Kelch; 6.
PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1
MATTER TOTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE-98234394; PubMed-9566959;
Kim T.-A., Lim J., Ota S., Raja S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-ORSAY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-2000
01-JUN-2000
                                                                                                                                                   SEQUENCE
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J. Cell Biol. 141:553-566(1998).
EMBL; AF059611; AAC26109.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Archaea; Euryarchaeota;
NCBI_TaxID=29292;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'NRP/B, a novel nuclear matrix protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         237 KELIEEGVRVADIVVISGGASGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12 KOXEEEAVRLXXXXLKNGGXSSG
                                                                                                                                                protein.
CE 589 AA;
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9; Conservative
Similarity 9; Conserv
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(TIEMBLIE1. 13, Last sequence update)
(TIEMBLIE1. 14, Last annotation update)
COFACTOR BIOSYNTHESIS PROTEIN (MOEA-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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39.1%;
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                                                                                                                                                WW.
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Pred. No. 23;
4; Mismatches
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Score 41; DB Pred. No. 36; 3; Mismatches
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                                                                                                                                                   DB003AlDFA65BAA0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rogers
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36;
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                                                          Length 589
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Gaps
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Best Local Similarity 45.0
Matches 9; Conservative
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01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
ECTODERM-NEURAL CORTEX-1 PROTEIN (ENC-1).
                                                                                                                                              the nervous system encodes an actin-binding p
J. Neurosci. 17:3038-3051(1997).
-i- FUNCTION: ACTIN-BINDING PROTEIN INVOLVED
NEURONAL PROCESS FORMATION AND IN DIFFERE
                                                                                                                                                                                                                                            Rubenstein J.L.R., Israel M.A.;
"ENC-1: a novel mammalian kelch-related
                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-ALBINO SWISS; TISSUE-BRAIN;
MEDLINE-97252647; PubMed-9096139;
Hernandez M.-C., Andres-Barquin P.J.,
                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Cloning of human ENC-1 and evaluation regulation in nervous system tumors."; Exp. Cell Res. 242:470-477(1998). EMBL; AF005381; AAC64498.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                J; AFUUJOCA, 159 AA; 66113 MW; C0002116EA6EAIAB CRC64;
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                    TISSUE SPECIFICITY: PRIMARILY EXPRESSED IN THE NERVOUS SYSTEM.
DEVELOPMENTAL STAGE: EXPRESSION IS HIGHLY DYNAMIC BUT MOSTLY
RESTRICTED TO THE NS. OUTSIDE THE NS. EXPRESSION IS DETECTED IN
THE ROSTRAL-MOST SOMITOMERE OF THE PRESOMITIC MESODERM, AT THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ø
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=9683534;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Rodentia;
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45.08;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                            Martinez S.,
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                                                                                                                                                                                                                   protein.";
                                                                                                                                                                                                                                            specifically
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SOMITE
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RESULT
Q9VRN7
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RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA Amanatides P.G., Scherer S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Styton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Man K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Abril J.F., Agbayani A., Ann H.-J., Andrews -Pfannkoch C., Baldwin D.,
RA Abril J.F., Agbayani A., Ann H.-J., Andrews -Pfannkoch C., Baldwin D.,
RA Abril J.F., Agbayani A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Duzbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W. M., Glasser K.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9VRN7
Q9VRN7;
Q9VRN7;
01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
REPEAT
REPEAT
REPEAT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Arthropoda; Tracheata; He
Pterygota; Neoptera; Endopterygota; Diptera;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CG5256 PROTEIN.
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DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SIMILARITY: BELONGS TO THE KELCH/MIPP FAMILY.
-!- SIMILARITY: CONTAINS 1 BTB/FOZ DOMAIN.
EMBL; U65079; A364206.1; -.
MGD; MGI:109610; Encl.
                                                                                                                                                                                                                                                                                                                                                                STRAIN-BERKELEY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFAM; PF01344; Kelch; 6.
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INTERPRO; IPRO01798; -.
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                                                                                                                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262
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SKEIVEEAIRCKLKILQNDG
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9; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۸A;
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585
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Fruit fly)
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6 APPROXIMATE KELCH TANDEM REPEATS.
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Last annotation update)
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
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a; Brachycera; Musc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
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Baldwin D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            Muscomorpha;
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RESULT OPERULT OF STREET O
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RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.R.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Reihert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Williams S.M., Woodseg T., Weinstock G.M., Weissenbach J.,
RA Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA Zheng X.H., Zhong F.N., Zhong W., Zhu S., Zhu X., Smith H.O.,
RA Zheng X.H., Zhong F.N., Zhong W., Zhu S., Zhu X., Smith H.O.,
RA Science 287:2185-2195(200).
DR EMBL; ALO03565; AAF50755.1; -.
DR INTERPRO; IPR00131; -.
DR INTERPRO; IPR001316; -.
DR INTERPRO; IPR0011849; -.
DR INTERPRO; IPR0011849; -.
DR INTERPRO; IPR0011849; -.
DR PFAM; PF001621; RDGS_1 1.
DR PFAM; PF00621; RDGS_1 1.
DR PFAM; PF001621; RDGS_CDC24; UNKNOWN_1.
DR PFAM; PF02196; RBD; 1.
DR PFAM; PF02196; RBD; 1.
DR PFAM; PF02003; PH_DOMAIN; 1.
SCQUENCE 2630 AA; 292511 MW; 56D1A4D5971FE5B9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Best Local (
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Q9VRN8;
Q1-MAY-2000 (TrE
01-MAY-2000 (TrE
01-OCT-2000 (TrE
CG5406 PROTEIN.
                        Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Ge Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
Dock C., Busam D.A., Boller R., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
Cherry J.M., Cawley S., Dang Z., Mays A.D., Dew J., Davies P.,
Cherry J.M., Cawley S., Davies P.,
Cherry J.M., Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-BERKELEY;
MEDLINE-20196006; PubMed-10731132;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13,
15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation update)
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Best Local S
Matches 10
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INTERPRO; IPR000219; -.
INTERPRO; IPR001331; -.
INTERPRO; IPR001478; -.
INTERPRO; IPR001449; -.
INTERPRO; IPR003116; -.
PFAM; PF00169; PH; 2.
PFAM; PF001621; RhoGEF; 1.
PFAM; PF00196; RBD; 1.
PFOSITE; PS00741; GDS_CDC24; UNKNG PROSITE; PS0073; PH_DOMAIN; 1.
SEQUENCE 2637 AA; 293079 MW; 7
                                                                                                                                                                                                                                                                                                                                                                                                 P96631;
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                                                         Beloin C., Ayora S., Exley R., Hirschbein L.,
Kasahara Y., Alonso J.C., Le Hegarat F.;
"Characterization of an Irp-like (IrpC) gene
Mol. Gen. Genef. 256:63-71(1997).
                                                                                                                                                                                                                                                                                                                 01-MAY-1997 (TIEMBLIEL 03, 01-JAN-1998 (TIEMBLIEL 05, 01-MAY-2000 (TIEMBLIEL 13, PROBABLE REPRESSOR PROTEIN.
                                                                                                                                                                    SEQUENCE FROM N.A.
    STRAIN-168;
                      SEQUENCE FROM N.A
                                                                                                                                       MEDLINE-98000887; PubMed-9341680;
                                                                                                                                                             STRAIN-168;
                                                                                                                                                                                                                     NCBI_TaxID=1423;
                                                                                                                                                                                                                                   Bactleria; Firmfoutes; Bacillus/Clostridium group. Bacillus/Staphylococcus group; Bacillus.
                                                                                                                                                                                                                                                                              Bacillus subtilis.
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                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  33.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Score 41; DB; Pred. No. 1.9e
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
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                                                                                                  Hirschbein L., egarat F.;
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10;
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                                                                             Bacillus subtilis.";
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RA Azevedo V., Bertero M.G., Bessleres P., Bolotin A., Borchert S.,
RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Boruillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
RA Entian K.D., Errington J., Fabret C., Ferrari E., Foulger D.,
RA Fritz C., Fujita M., Fujita Y., Fune S., Galizzi A., Galieron N.,
RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RA Fritz C., Fujita M., Fujita Y., Fune S., Galizzi A., Galieron N.,
RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RA Guiseppi G., Guy B.J., Haga K., Halech J., Harwood C.R., Henaut A.,
RA Joris B., Karamata D., Kasahara Y., Klaerr-Blanchard M., Klein C.,
RA Kobaysshi Y., Koetter P., Koningstein G., Krogh S., Kumano M.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kurita K., Lapidus A., Liu H., Masuda S., Mauel C., Medigue C.,
RA Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S., Noback M.,
RA Presecan E., Pujic P., Purnelle B., Rapoport G., Rey M., Pers Cott A.M.,
RA Parro V., Pohl T.M., Portetelle D., Porwollik S., Pres Cott A.M.,
RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,
RA Sato T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,
RA Sekiguchi J., Sekowska A., Seror S.J., Serror P., Shin B.S., Soldo B.,
RA Takeuchi M., Tamakoshi A., Tanaka T., Takahashi H., Takemaru K.,
RA Tosato V., Uchiyama S., Vandenbol M., Vannier F., Vassarotti A.,
RA Yari A., Wambutt R., Wedler E., Wedler H., Wetzenegger T.,
RA Yoshida K., Yoshikawa H.F., Zumstein E., Yoshikawa H., Danchin A.,
RA Yoshida K., Yoshikawa H.F., Zumstein E., Yoshikawa H., Danchin A.,
Ra Winters P., Watsa M., F., Zumstein E., Yoshikawa H., Danchin A.,
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Q9U184;
Q9U184;
Q9U184;
O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-MAY-2000 (TrEMBLrel. 13, Last annotation update)
"VPOTTHETICAL 41.7 KDA PROTEIN.
                                                           SEQUENCE FROM N.A.
STRAIN-FRIEDLIN;
Wedler H., Hilbert H., I
Quail M., Rajandream M./
Submitted (DEC-1999) to
                                                                                                                                                                                                                                                             Leishmania major.
Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTERPRO; IPR001387; -. PFAM; PF01381; HTH_3; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kunst F., Ogasawara N., Yoshikawa H., Danchin A.;
Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AB001488; BAA19320.1; -.
      SEQUENCE FROM N.A.
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AA; 14649
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                                                               ., Duesterhoeft A., Ivens A.C., M.A., Barrell B.G.; to the EMBL/GenBank/DDBJ databa
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                                                                                                                                                                                                                                                                                              Kinetoplastida;
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                                                                  Barrell B.G.;
e EMBL/GenBank/DDBJ databases
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"Structural analysis o
Sequence features of t
TAC and BAC clones.";
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SEQUENCE
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01-OCT-2000 (TrEMBLrel. 15, Last sequen
01-OCT-2000 (TREMBLrel. 15, Last annota
RNA-BINDING PROTEIN-LIKE.
Arabidopsis thaliana (Mouse-ear cress).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaneko T., Kato T., Submitted (MAY-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN-COLUMBIA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Brassicales; Brassicaceae; NCBI_TaxID=3702;
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smith D.F.;
                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-COLUMBIA;
                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                            12 KOXEEEAVRLXXXXLKNGGXSSGA
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L; AP002041; BAB02607.1; -
UENCE 455 AA; 48958 MW;
QREEVESVTTEKKRLDGGGGSSGA
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41;
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RESULT 2 EXE4_HELSU ID EXE4_HELSU AC 07-6349; DT 01-MAY-1992 DT 15-JUL-1998 DT 30-MAY-2000 DE EXENDIN-4 OE EXENDIN-6 C Eukaryota; OC Lepidosauri OC Heloderma. RN [1] RP SEQUENCE FR	Query Match Best Local S Matches 21 Qy 4 GTXX Li Db 4 GTFT	OS Heloderma horri OC Eukaryota; Met OC Lepidosauria; OC Heloderma. RN [1] RP SEQUENCE. RC TISSUE-VENOM; RX MEDLINE-910560 RA Eng J., Andrew RT "Purification RT secretagogue i J. Biol. Chem. CC -i- FUNCTION: CC -i- SIMILARITY DR HSSP; P01274; DR HSSP; P01274; DR HSSP; P01274; DR PFAM; PF00123; DR PROSITE; PS00123; DR PROSI	RESULT 1 EXE3_HELHO ID EXE3_HEL AC P20394; DT 01-FEB-1 DT 01-FEB-1 DT 01-MAY-1 DE EXENDIN-	35 35 35 35 35 35 35 35 35 35 35 35 35 3
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"Isolation and characterization of exendin-4, an exendin-3 analogue,
from Heloderma suspectum venom. Further evidence for an exendin
receptor on dispersed acini from guinea pig pancreas.";
J. Biol. Chem. 267:7402-7405(1992).
-!- FUNCTION: HAS A VIP/SECRETIN-LIKE BIOLOGICAL ACTIVITY. INTERACTS
WITH THE EXENDIN RECEPTOR.
SEQUENCE FROM N.A.
STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch
Riley M., Collado-Vides J., Glasner J.
                                                                                                         **MEDITING-7:00:10 MR., Kleckner N.;
Lu M., Kleckner N.;

"Molecular cloning and characterization phosphoglucomutase of Escherichia coli.'

** Bacteriol. 176:5847-5851(1994).
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-i- FUNCTION: THIS ENZYME PARTICIPATES IN SYMPHESIS OF GLUCOSE.
-i- CATALYTIC ACTIVITY.
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"A 718-kb DNA sequence of the Escherichia corresponding to the 12.7-28.0 min region DNA Res. 3:137-155(1996).
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nce 277:1453-1474(1997).
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P91620;
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SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=COLON CANCER;
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                                                                                                                                         Sone M., Hoshino M., Suzuki E., Kuroda S., Kaibuchi K., Nakagoshi H., Saigo K., Nabeshima Y.-I., Hama C.;
                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
Ephydroidea; Drosophilidae; Drosophila.
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-1- SIMILARITY: CONTAINS 1 BTB/POZ DOMAIN.
                                                                    "Still life, a protein in synaptic terminals of Drosophila homologous to GDP-GTP exchangers.";
                                                                                                                                                                                                                  MEDLINE-97153054;
                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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15-JUL-1999 (Rel. 38, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
STILL LIFE PROTEIN TYPE 2 (SIF TYPE 2).
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SIF1_DROME ID SIF1_DROME AC P91621; DT 15-JUL-1999 DT 15-JUL-1999 DT 01-OCT-2000

STANDARD;

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(Rel. 38, Created)
(Rel. 38, Last sequence update)
(Rel. 40, Last annotation update)

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INTERPRO; IPR00319; ...
INTERPRO; IPR001331; ...
INTERPRO; IPR001478; ...
INTERPRO; IPR001649; ...
PFAM; PF00595; PDZ; 1.
PFAM; PF000595; PDZ; 1.
PFAM; PF0019; PH; 2.
PFAM; PF0019; PH; 2.
PFAM; PF00071; RhoGEF; 1.
PROSITE; PS00741; GDS_CDC24; 1
PROSITE; PS0003; PH_DOMAIN; 1
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-i- FUNCTION: FEGULATES SYNAPTIO
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              12 KQXEEEAVRLXXXXLKNGGXSSGA 35 : | |:|| : || | |||:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE SPLICING. DEVELOPMENTAL STAGE AT STAGE 14, EXPRESSION OCCURS IN E SEGMENT OF THE CENTRAL NERVOUS SYSTEM. AT STAGE 17, EXPR BECOMES RESTRICTED TO THE SYNAPTIC REGIONS OF THE BRAIN VENTRAL NERVE CORD, WHERE SYNAPSES UNDERGO MATURATION. SIMILARITY: CONTAINS 1 DBL-HOMOLOGY DOMAIN (DH). SIMILARITY: CONTAINS 2 PH DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: REGULATES SYNAPTIC DIFFERENTIATION THROUGH THE ORGANIZATION OF ACTIN CYTOSKELETON POSSIBLY BY ACTIVATING RHO-LIKE GTPASES. IS LIKELY A FACTOR IN THE CASCADE OF RAC1 OR CDC42 IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: LOCALIZES TO THE SUBMEMBRANOUS REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE PRODUCTS: 2 ISOFORMS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SYNAPTIC TERMINALS
RQIIRESVRNMSIPMKNFGGSSGS 1784
                                                            Similarity
                                                                                                                       62

62

94

154

225

819

1184

1410

1674

467

1495

11898
                                               Conservative
                                                                                                             AA;
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1178
1249
937
1273
11673
1767
470
1298
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11909
                                                            33.9%;
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                                                                                                            POLY-PRO.
MW; 75D7CF21F49654B6 CRC64;
                                               4.
                                                                                                                                   PH.
PDZ.
DH.
PH.
PH.
POLY-PRO.
POLY-ARG.
POLY-PRO.
POLY-GLN.
                                                           Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                             factor;
                                                                                                                                                                                                                                                                                     X 25 AA APPROXIMATE REPEAT
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C.;
                                               Mismatches
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                                                          DB
29;
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EXPRESSION
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Query Match
Best Local S
Matches 10
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Science
[2]
                                                                                                                                                             PROSITE; PS00741; GDS_CDC24; 1.
PROSITE; PS50073; PH_DOMAIN: 1.
Guanine-nucleotide releasing factor; Deve Myristate; Synapse; Alternative splicing.
TIPDD 2
                                                      DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sone M., Hoshino M., Suzuki
Saigo K., Nabeshima Y.-I.,
Science 275:1405-1405(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sone M., Hoshino M., Suzuki E., Kuroda S., Ko
Saigo K., Nabeshima Y.-I., Hama C.;
"Still life, a protein in synaptic terminals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-97153054; PubMed-8999801;
Sone M., Hoshino M., Suzuki E., K
Saigo K., Nabeshima Y.-I., Hama C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota;
Pterygota;
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DOMAIN
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                                                                                                 DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GDP-GTP exchangers.";
lence 275:543-547(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                     SYNAPTIC TERMINALS: 2 ISOFORMS; SIF TYPE 1 (SHOWN HERE) AND ALTERNATIVE PRODUCTS: 2 ISOFORMS; SIF TYPE 1 (SHOWN HERE) AND TYPE 2 (AC P91620); ARE PRODUCED BY ALTERNATIVE SPLICING.

DEVOLOPMENTAL STAGE: AT STAGE 14, EXPRESSION OCCURS IN EACH SEGMENT OF THE CENTRAL NERVOUS SYSTEM. AT STAGE 17, EXPRESSION BECOMES RESTRICTED TO THE SYNAPSIES GF THE BRAIN AND VENTRAL RERYE CORD, WHERE SYNAPSES UNDERGO MATURATION.

SIMILARITY: CONTAINS 1 DBL-HOMOLOGY DOMAIN (DH).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NEURONS.
SUBCELLULAR LOCATION:
SYNAPTIC TERMINALS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: REGULATES SYNAPTIC DIFFERENTIATION THROUGH THE ORGANIZATION OF ACTIN CYTOSKELETON POSSIBLY BY ACTIVATING RHO-LIKE GTPASES. IS LIKELY A FACTOR IN THE CASCADE OF RAC1 OR CDC42 IN THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIFE
                                                                                                                                                                                                                                                                                                              D86547; BAA13109.1;
 . Similarity
10; Conserv
                                                                                                                                                                                                                                                                                                                                   an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                            requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Metazoa; Arthropoda; Tracheata; H
Neoptera; Endopterygota; Diptera;
a; Drosophilidae; Drosophila.
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1204
1430
1694
445
1315
 Conservative
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1293
1693
1787
453
548
1318
1329
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           33.98;
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Hama
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DH.
DH.
PH.
POLY-GLY.
POLY-FRO.
POLY-GLN.
           Score 41;
Pred. No.
                                                                 POLY-PRO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kuroda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kuroda .
 Mismatches
                                                       D3BDCC10A94D9E6C CRC64
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                                                                                                                                                                                        Developmental protein;
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            29;
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                     В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of Drosophila homologous
 10;
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                     Length 2064
  Indels
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Best Local S
Matches 8
             JU-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
TRANSCRIPTION INITIATION FACTOR IIB HOMOLOG (TFB OR PH1482.
                                      TF2B_PYRHO
059151;
30-MAY-2000
30-MAY-2000
30-MAY-2000
                                                                                                                                                                                                                                          Hypersensitive pomain 210
REPEAT 210
REPEAT 255
DOMAIN 276
REPEAT 276
REPEAT 311
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                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                               -II- FUNCTION: ELICITS THE HYPERSENSITIVE RESPO

UPON INFECTION. HARPIN ELICITS HR IN NON-

REQUIRED FOR PATHOGENICITY IN HOST PLANTS.

-I- SUBCELLULAR LOCATION: SECRETED; VIA THE HR

-I- MISCELLANEOUS: DIFFERENT PLANTS EXHIBIT DI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-93313957; PubMed-8324821;
He S.Y., Huang H.-C., Collmer A.;
"Pseudomonas syringae pv. syringae
                                                                                                                                                                                                                                                                                                                    EMBL; L14775
PIR; A40706;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.,
STRAIN=61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         secreted via the
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SENSITIVITY TO HARPIN-PSS.
                                                                                                                                                          TXXXXXSKQXEEEAVRLXXXXLKNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73:1255-1266(1993)
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                                                                                                                                       TTGSTSSKALQEVVVKLAEELMRNG
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                                                                                                                                                                                                                                                                                                                               L14775;
                                                                                                                                                                               Similarity
8; Conserv
Euryarchaeota;
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Proteobacteria; gamma subdivision;
         horikoshii.
                                                                                                                                                                                                                                   341 · AA;
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(Rel.
(Rel.
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210
265
265
276
276
311
                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                     A40706
                                                                                                                                                                                                                                                                                                                                AAA25839.1;
                                                                                                                                                                                                                                                                                                          response;
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                                                                                   STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29, Created)
29, Last sequence up
37, Last annotation
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216
271
314
279
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Thermococcales; Thermococcaceae;
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2 x 7
1-1.
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Pred. No. 10;
4; Mismatches
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2-1.
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elicits the hypersensitive
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                                                                                   A
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                                (TFIIB)
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                                                                                                                                                                                                   Length 341;
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Pyrococcus
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Matches 8
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INTERPRO; IPR000812; -.
PFAM; PEF0082; transcript_fac2; 2.
PRINTS; PR00685; TIFACTORIIB.
PROSITE; PS00782; TFIIB; 2.
Transcription regulation; Repeat; Z
ZN_FING
7
2019
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Q60430;
Q1-NOV-1997
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"Complete sequence and gene organization of the genome of a thermophilic archaebacterium, Pyrococcus horikoshii OT3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [1]
SEQUENCE FI
STRAIN-OT3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U1-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
NEUROGENIC DIFFERENTIATION FACTOR 1 (BETA-CELL E-BOX TRANS-ACTIVATOR 2) (BETA2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -i-
Genes Dev. 9:1009-1019(1995).

-I: FUNCTION: ACTS AS A DIFFERENTIATION FACTOR DURING NEU-
TRANSCRIPTIONAL ACTIVATOR. BINDS TO THE INSULIN GENE
-I: SUBUNIT: EFFICIENT DNA BINDING REQUIRES DIMERIZATION
BHLH PROTEIN, HETERODIMER WITH E47.
-I: SUBCELLULAR LOCATION: NUCLEAR (POTENTIAL).
-I: TISSUE SPECIFICITY: MOST ABUNDANT IN PANCREATIC ALPHA
CELLS, LESS IN BRAIN AND INTESTINE.
                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE-95293222; PubMed-7774807;

Maya F.J.; Stellrecht C.M.M., Tsai M.-J.;

"Tissue-specific regulation of the insulin gene by a novel basic helix-loop-helix transcription factor.";

Genes Day 9.1009-1018/1085
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                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                     Mesocricetus.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Mesocricetus auratus (Golden hamster).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NEUROD1 OR NEUROD
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Rodentia;
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K.,
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fuku Y.,
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Q60867; Q60897;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence upda
30-MAY-2000 (Rel. 39, Last annotation up
NEUROGENIC DIFFERENTIATION FACTOR 1.
NEURODI OR NEUROD.
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                                                                     This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U24679; AAA86518.1; ALT_INIT.
HSSP; P10085; IMDY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a
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DNA-binding; Nuclear protein; Transcr
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                                                                                                                                                                                                                                                                                                                                                      helix-loop-helix protein.";
Science 268:836-844(1995).
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MEDLINE-95273957; PubMe
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                                                                                                          FUNCTION: ACTS AS A DIFFERENTIATION FACTOR DURING NEUROGENESIS.
TRANSCRIPTIONAL ACTIVATOR. BINDS TO THE INSULIN GENE E-BOX.
SUBUNIT: EFFICIENT DIA BINDING REQUIRES DIMERIZATION WITH ANOTHE
BHLH PROTEIN. HETERODIMER WITH E47.
SUBCELLULAR LOCATION: NUCLEAR (POTENTIAL).
TISSUE SPECIFICITY: EXPRESSED IN DIFFERENTIATING NEURONS OF
BOTH THE CENTRAL AND PERIPHERAL NERVOUS SYSTEMS.
DEVELOPMENTAL STAGE: EXPRESSED DURING EMBRYONIC DEVELOPMENT.
SIMILARITY: BELONGS TO THE BASIC HELIX-LOOP-HELIX (BHLH) FAMILY
TRANSCRIPTION FACTORS. "ATONAL" SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: 'BELONGS TO THE BASIC HELIX-LOOP-HELIX (BHLH) FAMILY OF TRANSCRIPTION FACTORS. "ATONAL" SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SWISS-PROT entry is copyright. It is produced through
                                         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
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Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hollenberg
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58 77 GLU-RICH (ACIDIC).
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erg S.M., Snider
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42.1%;
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3; Mismatches
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HELIX-LOOP-HELIX MOTIF (BY SIMILARITY)
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Q1-NOV-1997
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NEUROGENIC D:
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         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                            "Cloning factor.";
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                                                                                                                                                    Biochem. Biophys. Res. Commun.
                                                                                                                                                                           Kawakami H., Maruyama H., Yasunami M.,
Nakanishi S., Nakamura S.;
                                                                                                                                                                                            TISSUE-CEREBELLUM; MEDLINE-96220182; PubMed-8660336;
                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                    Eukaryota;
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IPR003015;
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7 (Rel. 35, Last sequence update)
8 (Rel. 37, Last annotation update)
DIFFERENTIATION FACTOR 1 (BASIC HELIX-LOOP-HELIX FACTOR
                                                                                                                                                                                                                                    Metazoa;
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                                                                                                                                                                    helix-loop-helix
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                                                                                                                                                                                                                                                                                                                                                                                                      Length 357
                                                                                                                                                                                    Hara H., Saida
                                                                                                                                                                                                                                                                                                                                                                                       Indels
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RESULT 12
DNLI_ASFM2
ID DNLI_ASFM2
AC P26813;
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Matches 8
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HSSP; P10085; IMDY
INTERPRO; IPR001092; -.
INTERPRO; IPR003015; -.
PFAM; PF00010; HLH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
DOMAIN
DOMAIN
SEQUENCE
       This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                              01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
01-OCT-1996 (Rel. 34, Last annotation update)
DNA LIGASE (EC 6.5.1.1) (POLYDEOXYRIBONUCLEOTIDE SYNTHASE [ATP]).
African swine fever virus (isolate Malawi Lil 20/1) (ASFV).
Viruses; dsDNA viruses, no RNA stage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires
or send an email:
                                                                                                                                                                                                                                                                                                            MEDLINE-92310959; PubMed-1614852;
Hammond J.M., Kerr S.M., Smith G.L., Dis
"An African swine fever virus gene with
Nucleic Acids Res. 20:2667-2671(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; D82075;
EMBL; D82074;
                                                                                                                                                                                                                                                 Dixon L.K., Tv
Hammond J.M.,
                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE-94292915; PubMed-8021596;
                                                                                                                                                                                      <u>-</u>
                                                                                                                                                                                                                        "Nucleotide sequence of a 55 kl
genome of a pathogenic African
                                                                                                                                                                                                                         genome of
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                        African swine fover-like
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                         FUNCTION: THIS PROTEIN SEALS DURING DNA REPLICATION, DNA RECOMBINATION AND DNA REPAIR NICKS IN DOUBLE-STRANDED DNA. IT IS NOT ESSENTIAL FOR VIRAL REPLICATION AND RECOMBINATION. CATALYTIC ACTIVITY: ATP + (DEOXYRIBONUCLEOTIDE)(M) = AMP + PYROPHOSPHATE + (DEOXYRIBONUCLEOTIDE)(M+M).

SIMILARITY: BELONGS TO THE ATP-DEPENDENT DNA LIGASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KOXEEEAVRLXXXXLKNGG
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8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00038; HELIX_LOOP_HELIX; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          equires a license agreement (See http://www.isb-slb.ch/announce/
email to license@isb-sib.ch).
                                                                                                                                                                                                                                                              Twigg
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                                                                                                                                                                                                                                                 wigg S.R.F., Baylis Smith G.L.;
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42.1%;
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HELIX-LOOP-HELIX MOT
POLY-GLU.
POLY-LYS.
W; F773637E64D3E99E C
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Pred.
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                                                                                                                                                                                                                                      region
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                                                                                                                                                                                                                                                                                                                                      Dixon
                                                                                                                                                                                                                           fever
                                                                                                                                                                                                                                                              Vydelingum
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homology
                                              rmatics and the EMBL outst
There are no restrictions
ng as its content is in
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BB
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                                                                                                                                                                                                                           virus
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(See http://www.isb-sib

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RESULT 13
LUIA_LACON
ID LALYCON
ID AC 004973
DT 30.MAY
DC EMBL;
DR HSSD;
DR HSSD;
DR HSSD;
DR FROSI
DR PFAM;
DR PROSI
DR
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Best Local s
Matches 8
    Query Match
Best Local Similarity
                                                                                                                                                            HSSP; P2732U; 1001.
INTERPRO; IPR000891; -.
INTERPRO; IPR002034; -.
INTERPRO; IPR002034; -.
PFAM; PF00682; HNGI-11ke; 1
PFAM; PF0707815; AIPM_HOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   their functional expression in yeast.";

Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.

-i- FUNCTION: CAPALYZES CONDENSATION OF ACETYL-COA AND 2-
OXOISOVALERATE TO FORM 2-ISOPROPYLMALATE SYNTHASE.

-i- CAPALYTIC ACTIVITY: 3-CARBOXY-3-HYDROXY-4-METHYLPENTANOATE
ACETYL-COA + 3-METHYL-2-OXOBUTANOATE + H(2)O.

-i- PACHWAY: FIRST STEP IN LEUCINE BIOSYNTHESIS.

-i- SIMILARITY: BELONGS TO THE ALPHA-IFM SYNTHETASE / HOMOCITRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LU1A_LYCPN 004973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; S2301
INTERPRO;
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                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lycopersicon pennellii (Tomato)
Eukaryota; Viridiplantae; Embry
Magnoliophyta; eudicotyledons; o
Solanales; Solanaceae; Solanum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00697; DNA_LIGASE_A1; PROSITE; PS00333; DNA_LIGASE_A2; PROSITE; PS50160; DNA_LIGASE_A3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERPRO; IPR000977; -.
PFAM; PF01068; DNA_ligase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SYNTHASE A) (ALPHA-IPM SYNTHETASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA repair; DNA replication; DNA recombination; Cell division; Ligase; ATP-binding.
                                                                                           PROSITE; PS00815; AIPM_HOMOCIT_SYNTH_1; PROSITE; PS00816; AIPM_HOMOCIT_SYNTH=2; Leucine biosynthesis; Lyxse.
SEQUENCE 589 AA; 64360 MW; 150E48900
                                                                                                                                                                                                                                                          EMBL; AF004165; AAB61598.1; HSSP; P27320; 1DOY.
                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Cloning of two their functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wei T., Maita D.,
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30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
2-ISOPROPYLMALATE SYNTHASE A (EC 4.1.3.12) (ALPHA-ISOPROPYLMALATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-LEAF
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X71982; CAA50805.1;
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419 AA;
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48041 MW;
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42.1%;
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36
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lons; core eudicots;
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; DA781C64CA1B10F0
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    38;
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DB
27;
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dicots; Asteridae; euasterids
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FALSE_NEG
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RESULT 14
AST2_YEAST
ID AST2_YEA
AC P39945;
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01-FEB-1994
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aviles E., Berno A., Brennan T., Carpenter J., Chen E., Cherry Chung E., Duncan M., Guzman E., Hartzell G., Hunicke-Smith S., Hyman R., Kayser A., Komp C., Lashkari D., Lew H., Lin D., Mosedale D., Nakahara K., Namath A., Norgren R., Oefner P., Oh Petel F.X., Roberts D., Sehl P., Schramm S., Shogren T., Smith Taylor P., Wei Y., Yelton M., Botstein D., Davis R.W.; Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                 CO'A9...
Caenorhabditis elegans.
Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea
                                                                                                                                                                                                               CAEEL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycetes;
Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AST2
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01-FEB-1995
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        Wilson R., Ainscough R.,
Bonfield J., Burton J., (
Craxton M., Dear S., Du
                                                                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                                          STRAIN-BRISTOL N2;
MEDLINE-94150718; PubMed-7906398;
                                                                                                                              C07A9.1
                                                                                                                                       HYPOTHETICAL
                                                                    SEQUENCE FROM N.A.
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       Connell M., Z., Durbin F
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                                                                                                     Chromadorea;
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Best Local Similarity 30.0
Matches 9; Conservative
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                                                                                                                                                                                                                                                                                EMBL; Z29094; CAA82340.1; -.
BIR; S40706; S40706.
HSSP; P23807; 11XX6.
WORMPEP; C07A9.1; CE00502.
INTERPRO; IPRO01304; -.
FFAM; PF00059; lectin_C; 1.
PROSITE; PS50041; C_TYPE_LECTIN_2; UNKNOWN_1.
Hypothetical protein.
SEQUENCE 488 AA; 54717 MW; 9022691E47078814 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               elegans.";
Nature 368:32-38(1994).
                                                                                                      445
                                                                                                                              5 TXXXXXSKQXEEEAVRLXXXXLKNGGXSSG 34
                                                                                                TEMSRSRKEKEETEDSINVKSLKEGGTARG 474
                                                                                                                                                                                                   30.6%;
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OM protein - protein search, using sw model
                                                              Run on:
February 13, 2001, 16:06:05; Search time 21.65 Seconds (without alignments) 125.452 Million cell updates/sec
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Title: Perfect score: US-08-908-867-38 121 1 XXXGTXXXXXSKQXI

XXXGTXXXXXKQXEEEAVRLXXXXLKNGGXSSGAXXXXX 40

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 195891 seqs, 67900655 residues

Total number of hits satisfying chosen parameters: 195891

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 s summaries

Database :

PIR_66:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

200 200 200 200 200 200 200 200 200 200	Result
91- 91- 91- 91- 91- 91- 91- 91- 91- 91-	score
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### ALIGNMENTS

HWGH3Z exendin: - Mexican beaded lizard C;Species: Heloderma horridum (Mexican beaded lizard) C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 21-Nov-1997 C;Accession: A23674 R;Eng, J; Andrews, P.C.; Kleinman, W.A.; Singh, L.; Raufman, J.P. J. Biol. Chem. 265, 20259-20262, 1990. A;Title: Purification and structure of exendin-3, a new pancreatic secretagogue isola A;Reference number: A23674; MUID:91056087 A;Accession: A23674; MUID:91056087 A;Residues: 1-39 (ENG) C;Comment: Exendins are venom components that are thought to bind to receptors for va g in secretion of amylase. C;Superfamily: glucagon C;Keywords: amidated carboxyl end; duplication; secretagogue; venom C;Keywords: amidated carboxyl end; duplication; secretagogue; venom C;Keywords: amidated carboxyl end; Score 91; #status experimental Query Match Best Local Similarity 65.6%; Pred. No. 5.6e-10; Matches 21; Conservative 0; Mismatches 11; Indels 0; Gaps 0;  Matches 21; Conservative 0; Mismatches 11; Indels 0; Gaps 0;  Matches 21; Hillill
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exendin-4 - Gila monster
C:Species: Heloderma suspectum (Gila monster)
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 21-Nov-1997
C;Accession: A42486
R:Eng, J: Kleinman, W.A.: Singh, L.: Singh, G.: Raufman, J.P.
J. Biol. Chem. 267, 7402-7405, 1992
A;Title: Isolation and characterization of exendin-4, an exendin-3 analogue, from Hel A;Reference number: A42486; MUID:92218391
A;Accession: A42486
A;Molecule type: protein
A;Residues: 1-39 <ENG>
C;Comment: Exendin-4 does not stimulate amylase secretion by pancreatic acinar cells. C;Superfamily: glucagon
C;Keywords: amidated carboxyl end; duplication; venom
C;Keywords: amidated carboxyl end; duplication; venom

Query Match 75.2 Best Local Similarity 65.6 Matches 21; Conservative 75.2%; 65.6%; Score 91; DB 1; Length 39; Pred. No. 5.6e-10; 0; Mismatches 11; Indels 0 Gaps

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A; Macuus: nucleic acid sequence not shown; translation not sh, Status: nucleic acid sequence not shown; translation not sh, Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-546 <BLAT>
A; Cross references: GB: AEO00172; GB: U00096; NID: 91786896; PID
A; Cross references: GB: AEO00172; GB: U00096; NID: 91786896; PID
A; Experimental source: strain K-12, substrain MG1655
R; Lu, M.; Kleckner, N.
J: Bacteriol. 176, 5847-5851, 1994
A; Title: Molecular cloning and characterization of the pgm ge
A; Reference number: 155076; MUID: 94364967
A; Reference number: 155076; MUID: 94364967
A; Residues: 1-721, M, 23-546 <RES>
A; Cross-references: EMBL: U08369; NID: 9473887; PIDN: AAA57067.1
C; Genetics:
A; Gene: pgm
C; Function:
C; Superfamily: phosphoglucomutase
C; Keywords: intramolecular transferase; isomerase; phosphopro
F; 146/Active site: Ser (phosphoserine intermediate) #status: F
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                                                                                                            A; Gene
A; Map
                                                                                                                                                                                                                    A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-141 <MCL>
                                                                                                                                                                                                                                                                                                          conserved hypothetical protein SPAC8E11.11 - fission yeast (Schizosaccharomy C; Species: Schizosaccharomyces pombe C; Data: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 03-Dec-1999 C; Accession: T39165 C; Accession: T39165 R; MCLean, J.; Harris, D.; Wood, V.; Barrell, B.G.; Rajandream, M.A. submitted to the EMBL Data Library, February 1998 A; Reference number: Z21831
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;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 17-Mar-2000
;Accession: G64803; I55076
                       Best Local :
                                                                                                                                   Gene: SPDB:SPAC8E11.11
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Similarity 34.
8; Conservative
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                       33.98;
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Score 41; DB Pred. No. 3.2; 5; Mismatches
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 molybdenum cofactor biosynthesis protein (moea-1) PAB1436 - Pyrococcus abys C;Species: Pyrococcus abyssi C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 20-Jun-2000 C;Accession: A75054
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A75054
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R;White, O.; Eisen, J.A.; Heidelberg, J.F.;

M.; Shen, M.; Vamathevan, J.J.; Lam, P.; M.

S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.

Science 286, 1571-1577, 1999
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still life protein type 2 - fruit fly (Drosophila melanogaster)
C; Species: Drosophila melanogaster
C; Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 21-Jul-2000
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C;Superfamily: molybdenum cofactor biosynthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-402 <KAW>
A;Cross-references: GB:AJ248287; GB:AL096836; NID:g5458657; PIDN:CAB50326.1; PID:g545
A;Experimental source: strain Orsay
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C; Superfamily: Deinococcus radiodurans hypothetical protein DR2500
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A; Accession: A75054
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8; Conser
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Pred. No. 3.6;
4; Mismatches
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T.; Zalewski,
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C;Accession: C69774

C;Accession: C69774

C;Accession: C69774

C;Roch, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter C.; Broh, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chd A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel Y. M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Maueel Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Scanlon, A.; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seroz akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, A.; Winters, P.; Wipat, A.; Zamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.; Arithers: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.
A.; Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.
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A:Title: Still life, a protein ir A; Reference number: 217701; MUID: A; Accession: T13704
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A;Title: Still life, a protein in synaptic terminals of Drosophila homologous to GDP-GTIA; Reference number: Z17701; MUID:97153054
A;Accession: T13707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   still life protein type 1 - fruit fly (Drosophila melanogaster)
C:Species: Drosophila melanogaster
C:Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 21-Jul-2000
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A;Residues: 1-2044 <SON>
A;Cross-references: EMBL:D86546; NID:g1813375; PIDN:BAA13108.1;
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A; Residues: 1-2064 <SON>
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                                                                                       A; Reference number: A69580; MUID: 98044033
A; Accession: C69774
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                                                             A; Status: preliminary; nucleic acid sequence
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Best Local Similarity 41.
Matches 10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 41.7 hes 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12 KQXEEEAVRLXXXXLKNGGXSSGA 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4;
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Pred. No.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from GB/EMBL/DDBJ
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                                                                shown;
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A;Cross-references: GB:Z99106; GB:AL009126; NID:g2632653; PIDN:CAB12289.1; PID:g26327 A;Experimental source: strain 168 C;Genetics: A;Gene:-ydcN C;Superfamily: probable transcription repressor yowR
                                                                                                                                                                                                                                                                                                                            RESULT
T06154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      beta-D-glucan exohydrolase-like protein - Arabidopsis thaliana W;Alternate names: protein F13112.60 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #text_chang C;Accession: T45637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρy
A; Map position: 4
A; Introns: 4/2; 42/3; 273/2; 303/2; 342/3; 346/1;
                                                                                A;MoLecule type: DNA
A;Residues: 1-772 <BEV>
A;Residues: 1-772 <BEV>
A;Cross-references: EMBL;AL021768; GSPDB:GN00062; ATSP:F24J7.162
A;Experimental source: cultivar Columbia; BAC clone F24J7
                                                                                                                                                                 A; Reference number: Z15493
A; Accession: T06154
                                                                                                                                                                                                      R;Bevan, M.; Vitale, D.; Liguori, R.; Argiriou, A.; De submitted to the Protein Sequence Database, April 1999
                                                                                                                                                                                                                                                hypothetical protein F24J7.162 - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change C;Accession: T06154
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A; Introns: 57/1; 125/2; 155/3; 204/2;
A; Note: F13112.60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Cross-references: EMBL: AL133292
A; Experimental source: cultivar Columbia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Choisne, N.; Robert, C. submitted to the Protein A;Reference number: Z2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                              C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Superfamily: beta-glucosidase
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Best Local S
Matches 8
                                               Gene: ATSP:F24J7.162
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8; Conserved
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38.5%;
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Sequence Database,
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47.1%;
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Pred. No. 23;
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Pred. No. 4.4;
                                                                                                                                                                                                                                                                                                                                                                                                           403
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04-Feb-2000 #text_change
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November 1999
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        463/3; 485/2;
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        536/3;
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                                                                                                                                                                                                                             Bancroft,
      548/3; 576/3;
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11 SKQXEEEAVKLXXXXLKNGGXSSG

34

Similarity 9; Conser

33.1%;

Score 40; Pred. No.

12;

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Gaps

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Length 772; l; Indels

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extracellular hypersensitive necrosis response elicitor, 34.7K - (;Species: Pseudomonas syringae C;pate: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 0 C;Accession: A40706 R;He, S.Y.; Huang, H.C.; Collmer, A. Cell 73, 1255-1266, 1993 A;Title: Pseudomonas syringae pv. syringae harpinPss: a protein t A;Reference number: A40706; MUID:93313957 A;Accession: A40706
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A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic A;Reference number: A71000; MUID:98344137
A;Accession: D71137
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C;Species: Pyrococcus horikoshii
C;Date: 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 21-Jul-2000
C;Accession: D71137
polyribonucleotide nucleotidyltransferase
C;Species: Helicobacter pylori
A;Variety: Strain J99
C;Date: 12-Feb-1999 #sequence_revision 12-
C;Accession: E71845
R;Alm, R.A.; Ling, L.S.L.; Moir, D.T.; Kin
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A40706
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A;Experimental source: strain OT3
A;Note: this accession replaces an interim accession for a sequence replaced
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A; Residues: 1-208 < K
                                                                                                           RESULT
E71845
                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:L14775; NID:g349793; PIDN:AAA25839.1; A;Experimental source: syringae 61
A;Note: sequence extracted from NCBI backbone (NCBIN:135085,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Gene: PH0864
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A; Residues: 1-341 <HEl>
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Best Local S
Matches 8
                                                                                                                                                                                                                                                     Query Match
Best Local
Matches
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Keywords: transcription initiation
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8; Conserv
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8; Conser
     Ling, L.S.L.; Moir, D.T.; King, B.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                 protein
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Pred. No. 11;
3; Mismatches
                                                                                                                                                                                                                                                       Score 39; DB
Pred. No. 19;
4; Mismatches
                                                                                                                                                                                   51
                                      12-Feb-1999
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19;
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       Brown,
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   E.D.; Doig, P.C.;
                                                                                                                                                                                                                                                                                                                                                                                 PID: g349794
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                                                                                            (strain J99)
                                        24-Sep-1999
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         Smith,
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Search completed: Job time: 128 sec

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polynucleotide phosphorylase - Helicobacter pylori (strain 26695)

C;Species: Helicobacter pylori
C;Date: 09-Aug-1997 #sequence_revision 09-Aug-1997 #text_change 24-Sep-1999
C;Accession: E64671
R;Tomb, J.F.; White, O.; Kerlavage, A.R.; Clayton, R.A.; Sutton, G.G.; Fleischmann, Peterson, S.; Loftus, B.; Richardson, D.; Dodson, R.; Khalak, H.G.; Glodek, A.; McK son, J.D.; Kelley, J.M.; Cotton, M.D.; Weldman, J.M.; Fujii, C.; Bowman, C.; Watthey son, J.D.; Kelley, J.M.; Cotton, M.D.; Weldman, J.M.; Fujii, C.; Bowman, C.; Watthey Nature 388, 539-547, 1997
Nature 388, 539-547, 1997
N;A;A;A;A;Cission: E64671
A;Reference number: A64520; MUID:97394467
A;Reference number: A64520; MUID:97394467
A;A;A;A;Cission: E64671
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:AE001541; GB:AE001439; NID:g4155724; PIDN:AAD06718.1; A;Experimental source: strain J99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-688 <ARN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Genomic sequence comparison of two A; Reference number: A71800; MUID:99120557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Ives, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.F. Nature 397, 176-180, 1999
                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-688 <TOM>
A; Cross-references: GB:
C; Superfamily: polyribo
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E64671
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 SKQXEEEAVRLXXXXLKNGGXSSGA 35
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9; Conserv
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9; Conser
                                                                                                                                 ices: GB:AE000627; GB:AE000511; NID:92314373; PIDN:AAD08258.1;
polyribonucleotide nucleotidyltransferase alpha chain
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                                                         Score 39;
Pred. No.
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Maximum Match 100%
Listing first 45 summaries
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length: 2000000000
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
4: /cgn2_6/ptodata/2,
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121
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Gapop 10.0 , Gapext 0.5
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/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
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US-08-066-480-3

US-08-066-480-3

US-08-066-480-4

US-08-065-480-4

2 US-08-317-305-2

2 US-08-317-305-2

2 US-08-317-305-3

2 US-08-862-508-4

PCT-US95-12508-4

US-08-062-0248-5

US-08-062-0248-5

US-08-08-052-0248-5

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PCT-US94-05014-5

PCT-US94-05014-5

US-08-92-027A-1

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US-08-92-027A-1

US-08-92-027A-1

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US-08-93-05741-2

US-08-93-05741-9

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777 3 US-08-480-474-16
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Application US/08066480
 5424286

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; OTHER INFORMATION: /label= Exendin-3 US-08-066-480-1
                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/066
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514-
ATTORNEE/AGENT INFORMATION:
NAME: MCDONNELL, John J
REGISTRATION NUMBER: 26,949
REFERENCE/DOCKET NUMBER: 93,01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1204
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Eng, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 10 S. Wacker Drive CITY: Chicago STATE: Illinois COUNTRY: USA ZIP: 60606 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Eng, John
TITLE OF INVENTION: Pha
TITLE OF INVENTION: Exe
TITLE OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 39 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                FEATURE:
                                                                                                   MOLECULE TYPE:
                                      NAME/KEY:
LOCATION:
                                                                                                                        TOPOLOGY:
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10 S. Wacker Drive
                                            Peptide
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4 GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35

Similarity 65.6 21; Conservative

75.2%;

; Score 91; DB ; Pred. No. 5.9e 0; Mismatches

DB 1; 5.9e-10;

Length 39; Indels

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RESULT 3
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                                                                                                                                                                                Sequence 5, Application US/08066480 Patent No. 5424286
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Patent No. !
                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                      GENERAL INFORMATION:
APPLICANT: Eng, John
TITLE OF INVENTION: Pharmaceut
TITLE OF INVENTION: Exendin-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 312-715-1234 INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: US/08/066,480
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514
CLASSIFICATION: 514
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: MCDonnell, John J
REGISTRATION UNMBER: 26,949
REFERENCE/DOCKET NUMBER: 93,084
                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Eng, John TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Peptide
LOCATION: 1..39
OTHER INFORMATION: /label= Exendin-4
                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 65.6 nes 21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 39 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                  STREET:
                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
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                 Chicago
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Illinois
                                E: Allegretti & Witcoff, Ltd
10 S. Wacker Drive
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10 S. Wacker Drive
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                                                                                                          Pharmaceutical Compositions And Use of Exendin-3 and Exendin-4 for Treatment of Diabetes Mellitus
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5.9e-10;
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OTHER INFORMATION:
OTHER INFORMATION:
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Best Local S
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                APPLICATION NUMBER: US/08, FILING DATE: 24-MAR-1993 CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION: NAME: MCDonnell, John J
REGISTRATION NUMBER: 26,94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08,
FILING DATE: 24-MAR-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: McDonnell, John J
REGISTRATION NUMBER: 26,94
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INTERISTICS:
INTERISTICS
                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDLIUM TYPE: Floppy disk
COMPUTER: IBM PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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REFERENCE/DOCKET NUMBER: 93
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION:
TITLE OF INVENTION:
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CITY: Chicago
STATE: Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60606
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10 S. Wacker Drive
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Exendin-3 and Exendin-4 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68.6%;
76.0%;
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/note= "Exendin-4(9-39)"
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                                                                         93,084
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Best Local (
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APPLICANT: Eng, J
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                 TELEFAX: 312-715-1234 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Eng, John
TITLE OF INVENTION: Pha
TITLE OF INVENTION: Exe
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                             MEDIIM TYPE: Floppy disk
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                    FEATURE:
                                                                                   MOLECULE TYPE:
                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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                                  NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/066,480 FILING DATE: 24-MAR-1993 CLASSIFICATION: 514
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TYPE: amino acid
STRANDEDNESS: single
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ZIP: 60606
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 OTHER INFORMATION: OTHER INFORMATION:
                                                                                                              LENGTH: 31 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                             NAME: McDonnell, Joi
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: Peptide LOCATION: 1..31
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                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
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/note= "Exendin-4(1-31)"
/label= Y31-Exendin4
/note= "Y-31-Exendin-4(1-31)"
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Pred. No. 3
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Query Match

62.0%;

Score 75;

DB 1;

Length 31;

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US-08-317-305-2
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US-08-317-305-2
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                                                                                                                                    Sequence 4, Patent No.
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Best Local
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FILING DATE: 03-OCT-1994
CLASSIFICATION: 436
ATTORNEY/AGENT INFORMATION:
NAME: Williams Ph.D., Kathleen A.
REGISTRATION UNMBER: 34,380
REFERENCE/DOCKET NUMBER: DH-001XX
                                                                                                                      GENERAL INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                            TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                      APPLICANT: Avraham, Shalo
APPLICANT: Avraham, Hava
APPLICANT: Groopman, Jero
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                  CORRESPONDENCE ADDRESS:
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APPLICANT: Groopman, Jero
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CITY: Boston
STATE: MA
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   ADDRESSEE:
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9; Conserv
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
Wéingarten, Schurgin, Gagnebin & Hayes
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                                                           NOVEL PROTEIN MARKER AND DNA ENCODING
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Pred. No. 12;
3; Mismatches
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STREET: 40. Boston

Ten Post Office Square

COUNTRY: UZIP: 02109

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                                                   MEDUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/862,508
FILING DATE: 23-MAY-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/317,305
FILING DATE: 03-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: S11UEN TORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/08862508 Patent No. 6066451
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INFORMATION FOR SEQ ID NO:
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APPLICATION NUMBER: US/08/317,305
FILING DATE: 03-CCT-1994
CLASSIFICATION: 436
APPLOANED ACTIONS
                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: NO NUMBER OF SEQUENCES: 4 CORRESPONDENCE ADDRESS:
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APPLICANT: Avraham, Hava
APPLICANT: Groopman, Jerome
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REGISTRATION NUMBER: 34,380
REFERENCE/DOCKET NUMBER: DH
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OPERATING SYSTEM: PC-DOS/MS-DOS
NAME: Silveri, Jean M.
REGISTRATION NUMBER: 39,030
REFERENCE/DOCKET NUMBER: NER-259DV
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Local Similarity 45.0%;
tes 9; Conservative
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28 State Street
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VENTION: NOVEL NEURAL CELL PROTEIN MARKER RR/B AND DNA
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RESULT

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; TOPOLOGY: 11;
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US-08-862-508-4
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Best Local Similarity
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                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: NER-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (517) 227-7400
TELEFAX: (517) 74-4214
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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Patent No. 606645
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INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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FILING DATE: 03-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: S11veri, Jean M.
REGISTRATION NUMBER: 39/0
                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 23-MAY-1997
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: NOVEL NEURAL CELL PROTEIN MARKER RR/B AND DNA
NUMBER OF SEQUENCES: 4
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TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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262 SKEIVEEAIRCKLKILONDG 281
                              11 SKOXEEEAVRLXXXXLKNGG 30
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CITY: Boston
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Local Similarity 45.0%;
nes 9; Conservative
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45.0%;
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                                                                score 41; DB; Pred. No. 12; 3; Mismatches
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Pred. No. 12;
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/12508
FILING DATE: 29-SEP-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/317,305
FILING DATE: 03-CCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Silveri, Jean M.
REGISTRATION NUMBER: 39,030
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Best Local :
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 589 amino acids
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          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Lahive & Cockfield
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ADDRESSEE: Lahive & Cockfield
                                                                                                                                                                                                                                                 APPLICANT: AVTAham, Shalom
APPLICANT: AVTAham, Hava
APPLICANT: Groopman, Jerome E.
TITLE OF INVENTION: NOVEL PROTEIN MARKER AND DNA ENCODING SAME
NUMBER OF SEQUENCES: 4
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CURRENT APPLICATION DATA:
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STREET: 00
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ITLE OF INVENTION: NOVEL PROTEIN MARKER AND DNA ENCODING SAME
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CITY: Boston
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45.0%; Pred. No.
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US-08-062-024B-5
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                                                                           TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 341 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 5, Application Patent No. 5708139
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
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TOPOLOGY: 115--
YOLECHT
                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,8
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Alan Collmer and Sheng-Yang He
TITLE OF INVENTION: Pseudomonas syringae pv. syringae hrpz Gene
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: NE TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
NAME: Silver1, Jean M.
REGISTRATION NUMBER: 39,0
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          TOPOLOGY: linear MOLECULE TYPE: peptide
                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
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STREET: 25 Sky
CITY: Trumbull
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                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/062,024B FILING DATE: May 17th 1993 CLASSIFICATION: 435
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                                               TYPE: amino acid
STRANDEDNESS: sin
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SOFTWARE: Microsoft Word 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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Query Match
Best Local Similarity

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Score 39; Pred. No.

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FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: GOLdman, Michael L.
NAME: GOLdman, Michael L.
RECISTANTION NUMBER: 30,727
REFERENCE/DOCKET NUMBER: 14603/10050
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716) 263-1304
TELEPHONE: (716) 263-1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-891-254-5
                                                                                                    Sequence 5, Application US/08756407
Patent No. 5858786
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                       Query Match 32.2%;
Best Local Similarity 32.0%;
Matches 8; Conservative
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 341 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 514
PRIOR APPLICATION NUMBER:
                               NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                      APPLICANT: Alan Collmer and Sheng-Yang He
TITLE OF INVENTION: Pseudomonas syringae pv. syringae hrpZ Gene
                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Hypersensitive Response TITLE OF INVENTION: Induced Resistance In Plants
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                                                                                                                                                                                                                                    27
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TOPOLOGY: li
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ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
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Beer, Steven V.
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Best Local Similarity
""+"hes 8; Conserv?
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INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 341 amino acids
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PRIOR APPLICATION DATA:
APPLICATION UNMBER: 062,02
APPLICATION: UNMBER: 1993
ATTORIEY/AGENT INFORMATION:
NAME: Geoige, M. Yahwak
REGISTRATION: NUMBER: 26,82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 4
CURRENT APPLICATION DATA:
                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0,
CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
                                                                    CLASSIFICATION: 800 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
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                    ATTORNEY/AGENT INFORMATION:
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STATE: Connect
                                                                                                        APPLICATION NUMBER: US/08/819,539 FILING DATE: 17-MAR-1997
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STRANDEDNESS: sir
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FILING DATE: 27-NOV-1996
                                       FILING DATE:
                                                       APPLICATION NUMBER:
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Goldman, Michael L.
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Pred. No.
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Length 341; Indels

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| SIDSI/gcgdata/geneseq/geneseqp/AA1980.DAT:*
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length: 2000000000
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Match
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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### ALIGNMENTS

RESULT	OLT 1
X DI	Y17618 standard; peptide; 37 AA.
8	Y17618;
DT XX	09-AUG-1999 (first entry)
XX	FY05045 9005-0+ 100+-40 #94
×	באפוומדוו מקטוודפר הפהלידומה ויסאי
KW	Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard;
KW	diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia;
X X	hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
20	Synthetic.
SO	Heloderma sp.
XX	
PN	WO9925728-A1.
Z X	27-MAY-1999,
××	
y PF	13-NOV-1998; 98WO-US24273.
PR XX	14-NOV-1997; 97US-0066029.
XX	
XX	(AMIL') AMILIN PHAKM INC.
Id	Beeley NRA, Prickett KS;
××	VID4 1000-347456 (30
£ 7.	WF1; 1999-34/450/29.

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Claim 28; Fig 4; 144pp; English.

Peptide agonists of exendin - delay stomach emptying, diabetes and hypo- or hyper-glycaemia

for treating

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Query Match
Best Local S
Matches 21
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Best Local
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                                                                                                                          Y17535 to Y17624 represent exendin peptide agonists. Exendins are peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow gastric emptying (resulting in lower post-prandial glucose levels).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                              Peptide agonists of exendin - delay stomach emptying, diabetes and hypo- or hyper-glycaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Exendin; agonist; Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Exendin agonist peptide #72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y17606
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                                                                                                                                                                                                                                                  Claim 28; Fig 4; 144pp; English.
                                                                                                                                                                                                                                                                                                                            WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypoglycaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diabetes mellitus
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                                                                                                                                                                                                                                                                                                                                                                                   (AMYL-) AMYLIN PHARM
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GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
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21; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         st; Heloderma sp.; Gila monster; venom; lizard; tus type I; diabetes mellitus type II; hyperglycaemia; plasma glucose; gastric emptying; stomach emptying.
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65.6%;
                                          76.9%;
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Pred. No.
                             Score 93; DB
Pred. No. 1.8e
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1.8e-10;
11;
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Matches 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     slow
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                  New exendin agonist peptides slow gastric emptying, used i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AMYL-) AMYLIN PHARM INC
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Exendin agonist peptide #45
                       24-AUG-1999
                                                                                                                                                                                                                                          Sequence
                                                Y24853;
                                                                     Y24853 standard;
                                                                                                                                                                                                                                                                agents useful in delaying and/or slowing gastric emptying.
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                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gp.
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                                                                                                                                                                                  Conservative
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                        (first entry)
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                                                                     peptide;
                                                                                                                                                                                            76.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    ptides - can regulate gastric motility
  used for treating, e.g. diabetes
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Best Local S
Matches 21
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                                                                                                                                                                                                                                              Exendin; agonist; Heloderma sp.; Gila monster; venom; liz diabetes mellitus type I; diabetes mellitus type II; hype hypoglycaemia; plasma glucose; gastric emptying; stomach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-394773/33.
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  13-NOV-1998;
                                                         27-MAY-1999
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                                                                                                                                                                Heloderma
                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y24854 standard; peptide; 37
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                                                                                                                                                                                                                                                                                                                                                           agonist peptide #46
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  98WO-US24210
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65.68;
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Pred.
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1.8e-10;
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                                                                                                                                                                                                                                                                           hyperglycaemia;
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           Beeley NRA,
                                                                                                                                                                                                                                                                                       Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampe eclampsia of pregnancy; cardiac contractility; renal failure; divere congestive heart failure; mephrotic syndrome; pulmonary edema; cirr
                                                                                                                                                                                                                                                                                                                                                                                         08-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                     Y31535;
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                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                            Exendin agonist peptide.
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                                                                  13-FEB-1998;
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                                                                                                                                                  WO9940788-A1
                                                                                                                                                                                          Modified-site
                                                                                                                                                                                                                                                                           hypertension;
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                                     (AMYL-) AMYLIN PHARM INC
                                                                                                                        19-AUG-1999
                                                                                                                                                                                                                                   Heloderma
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           Prickett K,
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                                                                  98US-0075122
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                                                                                                                                                                                         Location/Qualifiers 35
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65.6%;
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0; Mismatches
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           Young
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1.8e-10;
                                                                                                                                                                                                                                                                                          pulmonary edema; cirrhosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37
                                                                                                                                                                                                                                                                                                       pre-eclampsia;
lure; diuretic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, conjective heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ (congestive heart failure, pulmonary edema, systemic edema or renal failure, pulmonary edema, systemic edema or renal failure, pulmonary edema, systemic edema or renal confession and sodium excretion without increasing potassium loss, and are fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                      Synthetic.
Heloderma sp
                                                                                                                                                                                                                                                                                                                                 Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
              Claim
                                         New exendin agonist peptides slow gastric emptying, used :
                                                                                      WPI; 1999-394773/33
                                                                                                                 Beeley NRA,
                                                                                                                                                                                                       13-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                            Exendin
                                                                                                                                                                                                                                                                                                                                                                                                                        24-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y24839;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to new methods of increasing urine
                                                                                                                                                                          14-NOV-1997;
                                                                                                                                                                                                                                   27-MAY-1999
                                                                                                                                                                                                                                                              WO9925727-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y24839 standard;
                                                                                                                                            (AMYL-) AMYLIN PHARM INC
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              18; Fig 4; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                            agonist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34; Page 48; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    urine flow by administering peptides or peptide agonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35
                                                                                                                 Prickett KS
                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                                                                          97US-0065442
                                                                                                                                                                                                       98WO-US24210
                                                                                                                                                                                                                                                                                                                                                                                          peptide #31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35
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                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₿
                                        can regulate gastric motility and ... treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>ω</u>
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Best Local
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                            Y17535 to Y17624 represent exendin peptide agonists. Exendins are peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric mothility and slow gastric-cemptying (resulting in lower post-prandial glucose levels).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia; hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                             Claim 28;
                                                                                                                                                                                            Peptide agonists of exendin - delay sometime of delay sometimes.
                                                                                                                                                                                                                                           WPI; 1999-347456/29
                                                                                                                                                                                                                                                                                                                                                                       13-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
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                                                                                                                                                            Fig 4: 144pp;
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65.6%;
                                                                                                                                                             English
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Pred. No. 2.6e
0; Mismatches
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                                                                                                                                                                                                           delay stomach emptying, for treating
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                                                                                                   Exendins are a lizard
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Query Match
Best Local Similarity

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Score Pred.

92; No.

DB 20; 2.6e-10;

Sequence

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                                                                                                                                                            The invention relates to new methods of increasing urine flow that comprises administering an exendin or exendin agonist, or a GLP-1 C (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for cexendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for cexendin, exendin agonist, GLP-1 or GLP-1 agonist. The new methods using an increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia correnal failure, congestive heart failure, nephrotic syndrome, pulmonary dema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ cdisorder that can be alleviated by increasing cardiac contractility congestive heart failure, pulmonary edema, systemic edema or renal failure). Unlike prior art diuretics, the new methods increase urine
   Query Match
Best Local S
Matches 21
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                                                                                                       excretion and sodium excretion without increasing potassium loss, and fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously. Sequences Y31505-560 represent examples of exendin agonists compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-FEB-1999;
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Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal failure; diuretic; congestive heart failure; nephrotic syndrome; pulmonary edema; cirrhosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Increasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beeley NRA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AMYL-) AMYLIN PHARM
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                                                                            Sequence
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                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                    32; Page 47; 94pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                 urine flow by administering peptides or peptide agonists
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   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prickett K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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               76.0%;
65.6%;
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Score 92; DB Pred. No. 2.7e 0; Mismatches
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DB 20; 1
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cches 11;
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                                                                                                  exendin agonists compounds
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Matches 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
 24-AUG-1999
                           Y24837;
                                                                                                                                                                                                                                                                                                                                                                                                                                            New exendin agenist peptides - can regulate gastric motility slow gastric emptying, used for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Exendin; agonist; Heloderma sp.; Gila monster; venom; li diabetes mellitus type I; diabetes mellitus type II; hyphypoglycaemia; plasma glucose; gastric emptying; stomach
                                                  Y24837 standard;
                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                           agents useful in delaying and/or slowing gastric emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 18; Fig 4; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-NOV-1997;
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                                                                                                                                                                                                                                   36 AA;
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(first entry)
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                                                  peptide;
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68.8%;
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Pred. No. 2
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y24809 to Y24877 represent exendin agonist peptides which can regulate gastric motility and slow gastric emptying. The peptides can be used for treating e.g. diabetes or hyperglycaemic or hypoglycaemic conditions. The peptides are exendin agonists which have activity as agents to regulate gastric motility and to slow gastric emptying, as evidenced by the ability to reduce post-prandial glucose levels in mammals. They can be used for the treatment of Type I and II diabetes and hyperglycaemic or hypoglycaemic conditions. They can also be used for the treatment of disorders which would be benefited by agents which lower plasma glucose levels and in treatment of disorders which would be benefited by agents which would be the streatment of disorders which would be benefited with agents useful in delaying and/or slowing gastric emptying.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemi hypoglycaemia; plasma glucose; gastric emptying; stomach emptying.
                                                                                                                                                                                                      17619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 18; Fig 4; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    slow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-394773/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Exendin agonist peptide
                                                                                                        Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia;
                                                                                                                                                                              09-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beeley NRA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heloderma sp
27-MAY-1999
                         WO9925728-A1
                                                                   Synthetic
                                                                                           hypoglycaemia;
                                                                                                                                                Exendin agonist peptide #85
                                                                                                                                                                                                                                     Y17619
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAY-1999.
                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                             12
                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                      4 GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35
                                                                                                                                                                                                                                                                                                     gtftsdlskqleeeavrlfieflknggpssga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gastric
                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                          Similarity 65.
                                                   ds
                                                                                                                                                                                                                                                                                                                                                                                                                               36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agonist peptides - can regulate gastric motility c emptying, used for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Prickett KS
                                                                                                                                                                             (first
                                                                                             plasma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0065442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US24210
                                                                                                                                                                                                                                  peptide;
                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                       76.0%;
                                                                                             glucose;
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                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                        Score 92; DB 20;
Pred. No. 2.7e-10;
0; Mismatches 11
                                                                                           gastric emptying; stomach emptying.
                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                    Length 36
                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hyperglycaemia;
                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              regulate
be used for
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RESULT
Y17605
CCCXXXIII
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y17535 to Y17624 represent exendin peptide agonists. Exendins are peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow gastric emptying (resulting in lower post-prandial glucose levels).
                                                                                                                                                                                                                                                    Exendin; agonist; Heloderma sp.; Gila monster; venom; lizard; diabetes mellitus type I; diabetes mellitus type II; hyperglycaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide agonists of exendin - delay signification diabetes and hypo- or hyper-glycaemia
                   Claim
                                        diabetes
                                               Peptide agonists of exendin -
                                                                                        Beeley
                                                                                                                                 14-NOV-1997;
                                                                                                                                                    13-NOV-1998;
                                                                                                                                                                         27-MAY-1999
                                                                                                                                                                                            WO9925728-A1.
                                                                                                                                                                                                                Heloderma
                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                            hypoglycaemia;
                                                                                                                                                                                                                                                                                    Exendin
                                                                                                                                                                                                                                                                                                         09-AUG-1999
                                                                                                                                                                                                                                                                                                                             Y17605;
                                                                                                                                                                                                                                                                                                                                               Y17605 standard; peptide; 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beeley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AMYL-) AMYLIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-NOV-1998;
                                                                                                            (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                 4 gtftsdlskqmeeeavrlfiewlknggxssga
                                                                                                                                                                                                                                                                                                                                                                                                                    4 GTXXXXXSKQXEEEAVRLXXXXLKNGGXSSGA 35
                                                                    1999-347456/29
                    28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28; Fig 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NRA,
                                                                                       NRA,
                                                                                                                                                                                                                                                                                                                                                                                                                                        L Similarity
22; Conserv
                                                                                                                                                                                                                                                                                    agonist
                                      and hypo- or hyper-glycaemia
                                                                                                                                                                                                               sp.
                  Fig 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                        Prickett KS;
                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₿
                                                                                                                                                                                                                                             plasma glucose; gastric emptying;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PHARM INC.
                                                                                                                                97US-0066029
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                                                                                                                                                    98WO-US24273
                                                                                                                                                                                                                                                                                   peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             144pp; English
                144pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  76.0%;
68.8%;
                   English.
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Pred.
                                                                                                                                                                                                                                                                                                                                                A
                                                 delay stomach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           delay stomach emptying,
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   No.;
                                                                                                                                                                                                                                                                                                                                                                                                  35
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 20;
2.7e-10;
                                                 emptying,
                                                                                                                                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for treating
                                                 for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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Y17535

to Y17624

represent exendin

peptide agonists. Exendins

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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptides that are found in the venom of the Gila-monster, a lizard endogenous to Arizona and Northern Mexico. The peptide agonists are used to treat diabetes mellitus (types I or II), hyperglycaemia or hypoglycaemia. They can also be used for in vitro and in vivo studies on exendins and their agonists. They regulate gastric motility and slow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal failure; diuretic; congestive heart failure; nephrotic syndrome; pulmonary edema; cirrhosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
Modified-site
(renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/disorder that can be alleviated by increasing cardiac contractility (congestive heart failure, pulmonary edema, systemic edema or renal
                                                                                                         comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia preventing or alleviating a disorder associated with toxic hypervolemia.
                                                                                                                                                                                                                                                                                        WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                                                                                                                                                     05-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9940788-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Exendin agonist peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y31531 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gastric emptying (resulting in lower post-prandial glucose
                                                                                                                                                                                           The invention relates to new methods of increasing urine flow that
                                                                                                                                                                                                                                                        Increasing
                                                                                                                                                                                                                                                                                                                                                     (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                     13-FEB-1998;
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                                                                                                                                                                                                                           30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sp.
                                                                                                                                                                                                                                                     urine flow by administering peptides or peptide agonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36
                                                                                                                                                                                                                           Page 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                       Prickett K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            urine flow.
                                                                                                                                                                                                                                                                                                                                                                                     98US-0075122
                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US02554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide;
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65.6%;
                                                                                                                                                                                                                       94pp; English.
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                                                                                                                                                                                                                                                                                                                       Vine
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Pred. No.
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                                                                                                                                                                                                                                                                                                                     Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 36;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cirrhosis;
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RESULT
Y31549
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Best Local
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The invention relates to new methods of increasing urine flow that comprises administering an exendin or exendin agonist, or a GLP-1 (glucagon-like peptide) or GLP-1 agonist. The new methods using an exendin, exendin agonist, GLP-1 or GLP-1 agonist are useful for increasing urine flow, decreasing potassium concentration in urine, preventing or alleviating a disorder associated with toxic hypervolemia (renal failure, congestive heart failure, nephrotic syndrome, pulmonary edema, cirrhosis, or hypertension). They can also be used for inducing rapid diuresis, preparing an individual for surgical procedure, increasing renal plasma flow and glomerular filtration rate, treating pre-eclampsia or eclampsia of pregnancy, and increasing a condition/ disorder that can be alleviated by increasing cardiac contractility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
Heloderma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Exendin; agonist; GLP-1; glucagon-like peptide; toxic hypervolemia; diuresis; renal plasma flow; glomerular filtration rate; pre-eclampsia; eclampsia of pregnancy; cardiac contractility; renal failure; diuretic; congestive heart failure; nephrotic syndrome; pulmonary edema; cirrhosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   failure). Unlike prior art diuretics, the new methods increase urine excretion and sodium excretion without increasing potassium loss, and fast acting. They have a prolonged duration of action, are inotropic, have a low toxicity, and are easily administered intravenously. Sequences Y31505-560 represent examples of exendin agonists compounds
                                                                                                                                                                                                                                                 WPI; 1999-527332/44.
                                                                                                                                                                                                                                                                                                                                      13-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                               05-FEB-1999;
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Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Exendin agonist peptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                        WO9940788-AI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypertension;
                                                                                                                                                                                       Example 48;
                                                                                                                                                                                                                  Increasing urine flow
                                                                                                                                                                                                                                                                                                        (AMYL-) AMYLIN PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             37 AA;
                                                                                                                                                                                       Page 55; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                             Prickett K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 urine
                                                                                                                                                                                                                                                                                                                                    98US-0075122
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37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :Location/Qualifiers
31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   flow.
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                                                                                                                                                                                                                   by administering
                                                                                                                                                                                                                                                                                                                                                                                                                                                    "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "N-methyl alanine"
                                                                                                                                                                                                                                                                            Vine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 92;
Pred. No.
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                                                                                                                                                                                                                                                                             Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB .
7.8e-1
                                                                                                                                                                                                                     peptides
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CC (congestive heart failure, pulmonary edema, systemic edema or renal CC failure). Unlike prior art diuretics, the new methods increase urine CC excretion and sodium excretion without increasing potassium loss, and are CC fast acting. They have a prolonged duration of action, are inotropic, CC have a low toxicity, and are easily administered intravenously. CC Sequences v31505-560 represent examples of exendin agonists compounds. XX Squence 37 AA;

Query Match 76.0%; Score 92; DB 20; Length 37; Best Local Similarity 68.8%; Pred. No. 2.8e-10; Matches 22; Conservative 0; Mismatches 10; Indels 0; Gaps 0; Matches 22; Conservative 0; Mismatches 10; Indels 0; Gaps 0; Matches 10; Indels 0; Gaps 0; Matches 10; Indels 0; Gaps 0; Matches 22; Conservative 0; Mismatches 10; Indels 0; Gaps 0; Matches 10; Indels 0; Matches 10; Matches 1
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